



POSTAL DEPARTMENT



BOOK NO.

ACCESSION

770 C14 41

480963

NOT TO BE TAKEN FROM THE LIBRARY

FORM 3427-5M-5-35









Digitized by the Internet Archive  
in 2013



# CAMERA CRAFT

A Photographic Monthly

George Allen Young, Editor

Volume XLI January to December, 1934

x 770 41  
C 14

Bromides by Improved Methods .....	<i>Photographic Digest</i>	300
Brown, Thirty Years Editor of the B. J., The Late George E. ....	<i>Dr. H. D'Arcy Power, F.R.P.S.</i>	500
Candid Camera in Newspaper Work, The .....	<i>Charles Randebaugh</i>	122
Cave Photography .....	<i>George F. Jackson</i>	322
Christmas Cards by Photography, Practical .....	<i>John W. McFarlane</i>	580
Cinema Punctuation .....	<i>Cinema Section</i>	245
Cinema Section .....	<i>Edited by William A. Palmer</i>	
Cinema, The Qualities of Good .....	<i>Cinema Section</i>	87
Circles and Straight Lines .....	<i>Cinema Section</i>	596
Composition for the Beginner .....	<i>Thomas A. Wilson, M.S.</i>	377, 433, 481
Continuity, Aids for .....	<i>Cinema Section</i>	493
Contrasts of Over-Hard Negatives, Altering the .....	<i>Dr. H. D'Arcy Power, F.R.P.S.</i>	501
Controlling Sunlight .....	<i>Cinema Section</i>	445
Copying for the Minicam .....	<i>Bland H. Casebolt</i>	167
Copying Stand, A Convenient .....	<i>Harry A. Kay</i>	381
Correspondence .....	31, 89, 140, 183, 246, 297, 345, 398, 450, 497,	554
Cutting and Mounting Bench .....	<i>The Amateur and His Troubles</i>	448
Developers, A Stunt in Compounding .....	<i>The Amateur and His Troubles</i>	92
Developing Apparatus .....	<i>Cinema Section</i>	86
Development, Fine Grain and Print Quality .....	<i>Bland H. Casebolt</i>	13
Editorial .....	79, 334,	609
Effects, Special Camera .....	<i>Cinema Section</i>	190
Effects to Finished Film, On Adding Special .....	<i>Cinema Section</i>	342
Fades, More on .....	<i>Cinema Section</i>	495
Fine Art of Photography, The .....	<i>Edwin C. Buxbaum, A.R.P.S.</i>	224
Fine Grain for Fine Results .....	<i>Cinema Section</i>	136
Freak Photographs .....	<i>Robert G. J. Desme</i>	327
Gadgets, A Mounting for .....	<i>Cinema Section</i>	138
Graflex, Photo Flashing With A .....	<i>T. K. Hastings</i>	128
How It Was Done .....	<i>P. Douglas Anderson, A.R.P.S.</i>	163
	<i>Walter P. Bruning</i>	273
	<i>H. F. Kells</i>	565
	<i>Dr. George C. Poundstone</i>	111
	<i>Frank Y. Sato, A.R.P.S.</i>	53
Infra-Red Photography, Some Remarks .....		
	<i>J.G.F. Druce, M.Sc. (Lond.), R. Nat Dr. (Prague), F.I.C.</i>	332
Intensifier, Iodide .....	<i>Photographic Digest</i>	248
Judge Not Lest Ye Be Judged .....	<i>James N. Doolittle</i>	3

Landscape .....	<i>Ansel Adams</i>	72
Lange, Dorothea—A Critical Analysis, The Photographs of .....	<i>Willard Van Dyke</i>	461
Lights and Its Effects on Exposure, The Angle of .....	<i>The Amateur and His Troubles</i>	347
London Photographic Exhibitions, The .....	<i>Dr. H. D'Arcy Power, F.R.P.S.</i>	556
Matte Box, Uses of the .....	<i>Cinema Section</i>	242
Miniature Camera, Notes on the .....	<i>William Mortensen</i>	359, 409
Miniature Camera Technique .....	<i>Edwin C. Buxbaum, A.R.P.S.</i>	538, 589
Minicam Problems, Solving A Few .....	<i>Delbert E. Jack</i>	318
Musical Scores for Projection .....	<i>Cinema Section</i>	543
Negative Ailments—Chemical, Miniature .....	<i>Neil W. Northey</i>	229
Our Book Shelves .....	48, 98, 304, 456,	611
Our Monthly Competitions .....	32, 80, 130, 184, 235, 286, 334, 385, 438, 486, 547,	598
Over-Hauling Cine Film .....	<i>Cinema Section</i>	392
Paper Negative Process, The .....	<i>Beauford B. Fisher</i>	513
Parallax Focussing .....	<i>Photographic Digest</i>	502
Photographic Digest .....	<i>Edited by Dr. H. D'Arcy Power, F.R.P.S.</i>	
Photomicrography, Low, Medium and High Power .....	<i>George H. Needham, F.R.M.S.</i>	522
Photomicrography, Low Power .....	<i>George H. Needham, F.R.M.S.</i>	64
Photomontage, A Job of .....	<i>Albert Jourdan</i>	368
Portrait Photography, The Human Side of .....	<i>Arnold Genthe</i>	573
Portraiture .....	<i>Ansel Adams</i>	114
Portraiture, Outdoor .....	<i>P. Douglas Anderson, A.R.P.S.</i>	468
Portraiture with Two Photofoods .....	<i>Albert K. Wittmer</i>	424
Printers from Projectors .....	<i>Cinema Section</i>	39
Printing Frame, Hi-Speed .....	<i>The Amateur and His Troubles</i>	143
Print Washer, Automatic Rocking .....	<i>W. H. McCullough</i>	397
Projection Code, The Home .....	<i>Cinema Section</i>	41
Reproduction, Photographs for .....	<i>Robert Mackay</i>	216
Retouching for Minicams, Print .....	<i>Raymond B. Collier</i>	532
Reversal Process, The .....	<i>Cinema Section</i>	343
Salon of Photography, London .....	<i>Dr. H. D'Arcy Power, Photographic Digest</i>	93
Salon of Pure Photography, First .....	<i>John Paul Edwards</i>	418
Salon, How About the American? .....	<i>William M. Rittase</i>	59
Salon, The Pittsburgh .....	<i>Charles K. Archer</i>	266
Selling Points—Points to Sell .....	<i>John P. Lyons</i> 43, 95, 196, 353,	502
Shadowless Lamp, Construction of the .....	<i>Fred P. Peel, A.R.P.S.</i>	280
Shooting Football .....	<i>Nestor Barrett</i>	476
Snow, Pictorial Portrayal of .....	<i>Edwin C. Buxbaum, A.R.P.S.</i>	26
Stains—Their Cause and Removal .....	<i>The Amateur and His Troubles</i>	92
Technique, An Exposition of My Photographic .....	<i>Ansel Adams</i> 19, 72, 114,	173
Third Dimension, The .....	<i>Cinema Section</i>	544
Title Tips .....	<i>Cinema Section</i>	293
Translucent Titles .....	<i>Cinema Section</i>	595
Traveling Salons, Camera Craft .....		450
Venus and Vulcan .....	<i>William Mortensen</i> 103, 153, 205, 257,	309
What'll We Shoot? .....	<i>Cinema Section</i>	394



# C A M E R A



"Remiero"

17th Los Angeles International Salon

F. Mora Carbons



# CRAFT

REG. U. S. PAT. OFFICE

**JANUARY 1934**

**VOL. XLI Number 1**

**SAN FRANCISCO**

**• CALIFORNIA •**

**PRICE 20c**



## In This Issue

**JUDGE NOT LEST YE BE JUDGED . . James N. Doolittle**

**PRINT QUALITY - FINE GRAIN . . . Bland H. Casebolt**

**MY PHOTOGRAPHIC TECHNIQUE . . . . Ansel Adams**



MORE ORDERS  
WITH NOMIS  
UNIFORMITY



Watch amateur snap-shotters exclaim over Haloid Nomis prints! There's the brilliant sparkle they like, the fine detail, the rich warmth. Your customer gets more orders, bigger orders. Repeat sales for your customer mean increased profit for you. Use coupon.

THE HALOID COMPANY, Rochester, N. Y.

New York Office: 225 Fifth Ave. Chicago Office: 68 W. Washington St.

Los Angeles Agent, A. H. Muhl, 1121 S. Los Angeles St.

San Francisco Agent, A. H. Muhl, 222 Kearny St.

The Haloid Co., Bldg. 3,  
Rochester, N. Y.

Please send 2,500 sheets,  
2 3/4 x 4 1/2, for this \$5.00.

Name .....

Address .....


HALOID  
**NOMIS**  
NO MISS



**G**REETINGS *from*  
*the Family of Agfa Ma-*  
*terials . . .* Mightily cheered our-  
 selves by the cordiality on all sides  
 towards this gifted family of ours, we

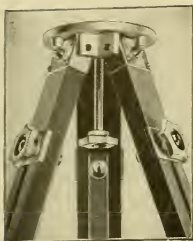
wish our many friends the Season's  
 Best Cheer, along with Subjects  
 abounding in interest and charm,  
 and Lighting scintillant with beauty,  
 knowing that their skill and Agfa  
 products will then produce those  
 delightful photographs that bring  
 warm satisfaction.

**AGFA ANSCO CORPORATION**

BINGHAMTON,  NEW YORK



Please mention Camera Craft when corresponding with Advertisers



THE  
new  
**Sharman**  
tripod

Here is the Tripod the camera man has often wished for. Note the practical, convenient lock-screw at the top of sliding member; the unusually long headscrew that just can't get lost; the buttons which prevent over-spread of the legs. And, though not visible in the illustration, the feet are of canvas rubber and grip like new tires.

This new SHARMAN tripod will fit any make of pan and tilt head, or any still camera.

Weight, only three pounds. Length closed, less than 32 inches. Length extended, more than 55½ inches. **\$8.50**

## WILLOUGHBYS

110 West 32nd St.

New York, N. Y.

*World's Largest Exclusive Camera Supply House*

### A FOCUSING CONVENIENCE

THIS LEVER  
opens the shutter  
independently.  
We can install it  
on most shutters  
for ..... **\$2.25**



## SHARMAN CAMERA WORKS

165 POST STREET  
SAN FRANCISCO

## CAMERA REPAIRING and SPECIAL CONSTRUCTION

# COMING

How It Was Done will be the general title for a series of articles which will begin in the next issue of Camera Craft, in which the leading pictorialists of this and other countries will each carefully analyze one of their pictures. Each of these articles will tell the complete story of how one picture of unusual merit was made. Both the technical and the artistic problems which occurred in the making of the picture will be stated and a detailed explanation as to how they were solved will be given. In short these articles will tell just what you want to know about the methods and aims of the finest photographers. We are convinced that this series will be one of the most interesting and valuable to appear in any magazine for some time.

William Mortensen's splendid article on Projection Control has created a sensation in photographic circles. We are happy to announce that he will continue to write for this magazine. The subject matter of his next article will be stated in this column next month.

William Rittase's fine photographs are constantly seen in such eminent magazines as Fortune, Vanity Fair, Vogue, and a number of others. You will discover that he is a man who thinks for himself and speaks straight from the shoulder. His article offering constructive criticism on the conduct of Salons in general will surely be interesting. Watch for this in the next issue.

Bland H. Casebolt has established the fact that he has much helpful information to convey to the miniature camera user. His article in the November issue was highly praised, and we are certain that the one appearing in this number will be equally well received. His next article will describe in detail a method of copying for the miniature camera fan that does not involve the use of the camera.

P. H. Oelman is a successful illustrative photographer, an instructor in photography, and a prominent pictorialist. Several of his pictures have won awards in our advanced competition. He is convinced that the practice of still life photography is a most practical method for learning a great deal about both composition and lighting. His article on Still Life Photography will be written from that view point.

Charles D. Raudebaugh is a reporter for the San Francisco Examiner and an enthusiastic miniature camera fan. His article entitled "The Candid Camera" tells an interesting story of the use of small cameras in newspaper work, with special emphasis on their value under adverse light conditions, and in obtaining human interest shots without the knowledge of the subject.

Beauford B. Fisher is a name which we believe Camera Craft readers will soon learn to treasure, for he reveals himself as an original experimenter, in other words just the sort of man who has something valuable to say to the student of photography. His pictures have been hung in virtually all of the large Salons throughout the world. He has recently taken up photography as a profession. An example of his work appeared as first prize in our Advanced competition for November. We pointed out that this picture was an exceptional example of fine technique in the paper negative process in as much as the skin textures had been so well maintained. Mr. Fisher will describe the paper negative process in full detail in an early issue.

George H. Needham, M.S., Fellow of the Royal Microscopical Society and past President of the New York Microscopical Society, is preparing an article on Photomicrography to be illustrated with some of his best work. He will present this fascinating subject somewhat differently from the usual written particularly in a photographic journal, yet it will be written particularly for the amateur and professional photographer who desires to take up the study. Both the simple and more complex outfits and correct methods of use will be adequately described.

Please mention Camera Craft when corresponding with Advertisers







*"Pastoral"*

*Walter P. Bruning*

*17th Los Angeles International Salon*



# Judge Not Lest Ye Be Judged

James N. Doolittle

## The One-Man Jury versus Collective Bargaining

ONE of the most futile of human endeavors is that of attempted reform.

Here I've been writing of this and that in connection with art, exhibitions, Pictorial photography and kindred matters for too many years to make the admission a pleasant one and still the world gets no better. I'm speaking now of that small corner of the globe occupied by photographers and the sphere of their artistic aims and endeavors.

Last year, you may remember, I went on at length to tell some of the ways and means of reviewing and reporting a photographic Salon. My words were directed at that comparatively small group of persons who, on some slight pretext, went into print on the occasion of their local exhibition and spread before the eyes of their waiting public a report calculated to enlighten, educate or entertain. Others attempted the actual and conventional review print by print, artist by artist, and each by each other.

True, my article appeared but a short twelve-month ago but lots of shows have come and gone, the attack follows the same old routine and I haven't done a bit of good! One of the most important shows held in this country in years has so recently closed that it is a vivid memory and still I have read nothing about it which differs greatly in style from a time schedule, market report or table of vital statistics.

But just the same I'm going to keep on writing about these Annual Salons of the Camera Pictorialists of Los Angeles even tho the interest is but more or less evenly divided between myself and those few whom I shall favor by personal mention.

I have abandoned the role of educator and I don't give a tinker's damn how Salon reviews are written from now on. Without the least idea in the world of the current quotation on tinker's damns, I shall still

ignore precedent and write these things just as tho nothing had happened—which it hasn't.

In the strictest sense this will not be a review since as this matter goes to press the Salon will not have occurred. Readers of last year's article will recall that I advised reviewers to actually attend the show before setting their opinions to type as this makes for a sort of intimacy and brands the article with the stamp of authenticity. Lest I appear to contradict myself, let me go on to say that this shall instead be a *pre-view* wherein it is conceivable that conclusions formed by appraisal of individual exhibits might be altogether incompatible with opinions based upon later comparisons with the entire Salon before me upon the walls.

An element of uniqueness in this instance may be disclosed in the admission that not only do I fulfill the role of commentator but that of Judge!

Having given every conventional form of selection of exhibits a thorough trial, engaging the services of as many sorts and mixtures of individuals as could be found and employing as many methods of balloting as ingenuity could devise, the Camera Pictorialists have this year placed the contributor at the mercy of one individual.

You who are interested may therefore praise or condemn their act just as you may applaud or censor my judgment. If I could assume the position of innocent bystander, I'd be inclined to favor the theory of self-determination versus collective bargaining. I shall anyway, as a matter of fact, and endeavor the while to place upon the walls of the Art Section of the Los Angeles Museum a show which, even tho it be a mirror reflection of the tastes of one person, the aggregation shall not become a composite of the errors of three or more!

It need not impress you particularly but I've been pretty close to this exhibition racket for a good many years. I've sat on and with a great many juries and I know how they work. I've heard every argument for and against art that was ever voiced by those who should know and by those who should know better. I've seen good stuff turned down and worse still, I've seen bad pictures passed without dissenting voice. I've listened to unending discussions about technique by persons who scarcely knew the meaning of the term and I have choked a laugh at ceaseless repetition of all the camera-club expressions ever coined. By the hour I've sat by while a print was discussed which anyone qualified to serve on a jury could appraise in a jiffy and the discussion was, in point of its seriousness, in indirect ratio to the actual merit of the print. Words, words, words—enough by volume to decide the fate of nations; in substance to decide nothing at all.

Still and all, we've prided ourselves in hanging creditable shows despite the evils of the jury system, but it has simply been a matter of weeding out enough prints so that the residue would fit into the space available for the exhibit. To be sure, this has never been the intent of the sponsors but such has been the result.

In the present instance, I can guarantee that the several hundred prints which shall ultimately form the "17th Annual" will have been selected without conversation, argument or vote. I don't talk to myself—yet—and as for argument, let that come later.



"Marco Polo"

William Mortensen

17th Annual Los Angeles Salon

You've heard a lot about the fairness and impartiality of juries; you've even been guaranteed that their findings would be based upon considerations of fairness and impartiality but I shall not be fair and impartial! Admittedly I have strongly ingrained ideas. I'm obstinate in a great many ways and firmly rooted to notions of long standing. It may so happen, even tho your prints were faultlessly composed according to every rule in the book and processed to perfection, that I give them the go-by. It may chance that your contribution has found favor with half a dozen juries and been accorded all the honors which Salons pass out these days and still it doesn't hang! But, you see, I have no means

of knowing even tho I cared, to what degree these prints had to compete in these shows with other material. Recognizing the fact that poor stuff does get by, perhaps your work was simply better than some of this. The outsider never knows by what small margin he either wins or loses. If perfection were measurable in substantial quantities a print might possess all of them yet fail to please me in that it lacked picture interest.

I hold that this last is perhaps the one important consideration upon which to judge Salon exhibits. It might not be too far-fetched to compare a print to a motion picture which, with an attractive star, adequate cast and perfect photography, failed to hold the public because it lacked a story. Visitors to exhibitions are interested in what we actually accomplish and accept our efforts at face values. To be sure there are those among them who put on their other specs and go for surface textures—would even feel the prints if they were not nailed down under glass—and would like to study formulae if it were feasible to publish production data. But these folks are in the minority and besides there is always an attendant who will talk photography by the hour.

So, entertain me. While I shall probably be harsh with crudely spotted prints and may prove finicky in preferring clean, brilliant results in any medium, it is likely that I shall pay more attention to what you have to say rather than in the manner of its saying.

Then I shall be partial to names. It is more than likely that, recognizing some of the who's who, I shall look a little closer, make mental comparisons with some of their former works and actual comparisons with the present accomplishments of lesser known personages. While one is to be given credit for the acquisition of a name which has carried some weight thru the ages, I cannot suffer him the ignominy of appearing to disadvantage among younger workers. Better be he not seen at all than recognized to his own undoing.

Having thoroughly explained my attitude, elicited your sympathetic understanding and unqualified approval, I shall now take you with me for a round of the three galleries in which there are probably a couple of thousand prints spread out along the walls, and arranged in rows covering, I should say, almost an acre of floor space.

We shall take a half hour or so just looking—getting a perspective of the whole. Our superficial inspection is pleasing; looks as tho we'd have another excellent show. Nearly all of the several hundred groups seem to present acceptable material and the level seems high. We make no decisions—just skim the surface, so to speak. Here and there a highlight and no deep shadows.

However, as our eyes become accustomed to the spectacle, we begin to see detail in the highlights while the shadows darken. It would seem a good idea to lose the shadows the better to stand the radiance of the higher values so we ask the committee in attendance to remove those groups which seem to fall far short of our notions of Salon material. About half are deleted in this gesture.

The committee has carefully placed the works of each man in individual groups sufficiently apart from its neighbors so as to avert confusion and my concern will now lie with these as groups. No par-



"A Cottage in Bavaris"

John C. Tredwell

17th Annual Los Angeles Salon

ticular order has been observed other than this in presenting the prints for inspection so this shall not be an excursion thru a catalog from Alcock to Zerbe, as it might at one time have been. I surely wish that I might start with Bill's work this year—Bill Alcock, I mean. As for Zerbe, whom I cannot exactly accost as Bill, I may encounter him yet! I shall start right here by the door where we came in—and by the time we get around here again the job will have been finished.

In the past I've had something to say not altogether to the credit of workers in what we call the more difficult processes. I've harbored the outspoken wish that they'd stick to the plain developing papers and not get so fancy. But I'm swinging around to the conclusion that bromide printing offers a wide field for a lot of learning. Echague's fressons, Misonne's oils, Berssenbrugge's gums, McMurtry's carbros and Leighton's one-coating gum prints all bespeak a mastery of the A B C's without which the rest of the alphabet would be badly pied. Carbonnell does things in fresson, Hawkins in bromoil transfer and Fred Judge with bromo-litho which provide real thrills when we realize that all have been thru the mill of learning fundamentals.

But the simple bromide print is a medium whose potentialities are hugely discounted. The Japanese, as a group apply themselves in a manner which proves that they've gotten the hang of what we are apt to look upon as an easy vehicle of expression.



I. Matsushita and Dr. Koike, both of Seattle, Yaginuma and Kimura—Los Angeles—supply every evidence that one need go no farther than projection papers plus good negative work to really make pictures. Conceding, of course, the necessity for adequate subject matter one doesn't have to tie pink ribbons on a good thing to catch the eye.

Notice, in point, the shot of an egg by Quigley. He knows how to make a negative and then what to do with it. I don't want the thing as a gift for its picture value but there's entertainment in seeing a thing well done.

Jean Linstead does some similarly inconsequential things taken from the picture interest angle but he does it so well that one overlooks the thinness of motive.

Here's a shot by Harald Lidell—a mountain climber against a black sky in the coldest of snow. It challenges comparison with Julian Smith's "Top of the World," altho the synthetic mountains in the latter's print were better left to the better Maker of Mountains.

I suppose landscapes are the most obvious of pictorial fare in which triumph is attained thru a process of omission—knowing what not to take. Walter Bruning's "Pastoral," however, is the product of knowing what to record and being there at the time. Plus good carbon technique. he wins a vote right here.

Pastorals seem to be running in flocks so I shall gather up an armload the better to study them as a group. H. F. Kells with "Elemental", A. Molind—"To the Soil"; John Eaton, "Landscape Pattern" and Wilfred Wolfs "The Binder" utilize the common subject of horse propelled farm equipment to repeat the successes of hundreds who have come before but theres no passing it up because it's been done.

So, too, might I treat a gross of figure studies except that they insist upon more intimate attention. Lionel Heyman does a group of three girls which, not startling either technically or pictorially, is so downright easy to look upon that my susceptibilities are touched. Remembering far different material of last year, I glory in his versatility. Dapprich comes with two. One is a montage of "Imagination-Fear-Madness", the other, "Rukmini", a standing Hindu Maiden which might be classified as a decorative portrait. Robert Officer's, "Awaiting the Bell" poorly disguises the considerable amount of hand labor on the print as well, as the negative. It's too good a subject to require anything but straightforward treatment. I'm getting tired of synthetic textures whose only effect is to disguise camera work. Photography isn't difficult if you put your mind to it.

If a man submits but one print and it's accepted, he rates 100 per cent. This is Ken Alexander's score with a "Portrait" which induces the wish that he'd patronized us a little more liberally. Will Connell, one of the home boys, has a lower score but I like his three portraits and the fact that one of them is a commercial assignment for Santa Fe Cigars doesn't hurt it a bit. Frank Judson's head of "Master Dave Dickinson" is nothing more nor less than a sweet portrait of an adorable child. I guess I just like kids. Pictorial? You tell me.

Then there's Mortenson's work. "Marco Polo" is an illustration more than a portrait but isn't all his stuff imbued with that imaginative





"Portrait"

Kenneth Alexander

17th Annual Los Angeles Salon

quality which gives the rest of us such a high mark to aim at. And what poor marksmen we are!

I'd like to take an hour or so to tell you about all the snow scenes which I shall have to turn into the winter night. Determined to exercise the closest sort of discrimination in seeing that we were not literally frozen out of house and home, I find that more than a dozen have snuck by. There's simply no way of keeping out good material merely to avoid repetition. Thos. O. Sheckell chills me to the marrow with "Silent Winter" and Adolf Fassbender drops a cake of ice down my back with "The Crinoline". You don't get the connection with the last

title until I explain that the stark branches of a tree cast lacy shadows across the snows in a pattern which not vaguely suggests the hoop-skirt of a past age. Snow textures furnish the overgarment to complete the metaphor.

I don't like this term "pattern" applied to pictures for it denotes anything that is not strictly orthodox, conventional, commonplace or understood. But until someone starts a better one in circulation, I'll apply it to "The Inspector" by W. M. Hammond. It's only a shot of an open umbrella, the radial lines emanating spider-like from just the right point. You don't get it at first but the title comes from a spider itself which is giving the works a look-over. Happily conceived and skillfully done if you ask me.

Then Alfred DeLardi does a clever thing with several octaves of organ keys. An all-over pattern of ivories which close inspection and some guessing suggests that he's a handy person with the trimming knife and copying camera. P. Douglas Anderson kills a rainy day and does more things with nails short of building a house, than I've seen in a long time. Get hold of a copy of the Salon Catalog and you'll see what I mean. (25 cents from the Committee)

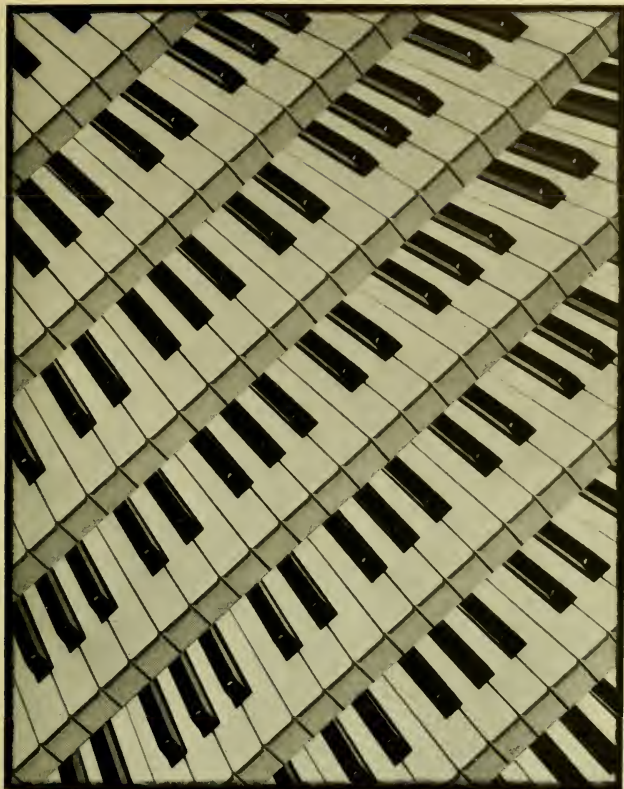
One can apply "pattern" to animate subjects too with at least the usual amount of logic as witness this shot by Tschik Ferenc, Hungary. Only a dump-cart driven across the upper corner of an eleven by fourteen with shadows slanting down towards you. But I like it.

Perhaps the fact that our dollar is so nervous these days has something to do with a falling off of foreign contributions especially from Our Viennese friends. We miss them as we deplore the necessity of asking the exhibitor to pay his own way. But the "show must go on" and even art costs money—not to mention postage, catalogs, and a lot of other things.

I've often wondered whether our judgment of foreign work isn't warped a little by the fact that strange scenes, different people and unfamiliar customs are taken for pictorial material. Even in my present role I cannot set aside a tendency to pay a little more attention to something that I haven't seen before when I should be entirely neutral, so to speak. As a pictorialist, I don't shoot around my back yard but go as far afield as my flivver will carry me. I might end up in another's back yard fifty miles away and make a lot of pictures. Perhaps the wanderlust sharpens one's perceptions.

Anyway, I get a lot out of such stuff as "The Water Carrier" by Sam Khambata, Bombay. Our hicks are picturesque to the city dweller but you don't see them with turbans, floppy pants and a shawl. And we pay money to watch jugglers do far simpler tricks than the two women in the shot by A. Nipius from the Dutch East Indies. These two are shown entering an ornate doorway—one carrying a baby and both have groceries and vittles for a week piled high on their heads. This one's a bromoil and nicely done. J. Nalwalla does a street scene of the more conventional character but with the enchantment which the distant locale provides.

J. N. Unwalla, Bombay, sends a little table-top shot with a touch of humor and the title, "Un peu d'amour"—something about love, if you



"Rhythm"

Alfred A. DeLardi, A.R.P.S

17th Annual Los Angeles Salon

know your French but good table-top work in any language. F. R. Ratnagar's "Stormy Weather" is well composed. The shrouded figures at the base of a light standard looking after the retreating storm puts the title in the past tense which is little enough to say for a truly nice piece of work.

Java is well represented by E. J. G. Schermerhorn with a scene of "Lake Lugano". The author, too, finds his material in far places, so perhaps my quest for pictures in distant back yards is not too illogical. This is a bromoil transfer.



"Im Gegenlicht"

Tschik Ferenc

17th Annual Los Angeles Salon

And so I might go on thru nearly three hundred more prints which merit as much or as little attention as I have given these random selections. To proceed would run me out of paper and you of patience. Each choice has been carefully made with a view to stimulating the responses intellectual, physical or emotional. There is little doubt that the Salon will be well and favorably received; its manner of picking and choosing will invite comment, antipathy, praise.

But we've had our share of each; it's an old story after seventeen years. Stop me if you've heard this one!

# Print Quality - - - And Fine Grain Development

Bland H. Casebolt

**W**HILE it seems that most of the miniature camera users are satisfied that para phenylenediamine developers produce negatives having finer grain than any other developing chemical, many have experienced trouble in obtaining satisfactory gradation in the final enlargement. This is particularly true when using the contrasty emulsions such as Du Pont "Micro ( $\frac{1}{4}$  speed)" and Eastman "Panatomic." Many feel that fine grain formulas have been worked out with too much concentration on the scientific side and not enough consideration given to providing a fine grain developer that gives a negative suitable for pictorial photography. It is the purpose of this article to give some concrete information, rather than to generalize the subject, or to deal with the laboratory side only.

Being satisfied that the Sease No. 3 formula given below will fulfill all requirements we will consider this developer for the present.

Mix in the following order:

Water (150°F) .....	32 ounces	or (60°C) .....	1 liter
Sodium sulphite.....	3 ounces		90 grams
p-Phenylenediamine....	146 grains		10 grams
Glycerine .....	98 grains		6 grams

Experience has demonstrated the fact that improper exposure and over development are the causes of failure. There is only one correct exposure. Film that has been under exposed can not help but lack shadow detail, while with the modern panchromite emulsions excessive over exposure increases contrasts.<sup>1</sup> Tests with the sector wheel and desitometer show that a little over twice as much exposure, as would be given with the D-76 formula, is necessary when using the Sease No. 3, in order to obtain the same shadow detail. This has been proven true by actual photographic tests. Taking this into consideration the speed value (day-light) of films used by the miniature camera are as follows:

*Important:* An error occurred in Mr. Casebolt's article, "Comparison of Fine Grain Developers", in our November issue. In the caption to Fig. 8, it was stated that normal exposure was used in conjunction with

<sup>1</sup>Studio Light, E.K.Co., Nov. '33.



the Sease No. 3 formula which is incorrect. As has just been stated above a little more than twice normal exposure should be given to negatives that are to be developed in this formula. The table of film speeds listed below is adjusted to allow for the necessary additional exposure, consequently when using these speed ratings proceed as for normal exposure. In other words, in using these figures set your meter at the rating given for the film in use and use the exact exposure given by the meter. If you use the speed ratings given by the manufacturer double the exposure given by the meter. Obviously this applies only to exposures which are to be developed in the Sease No. 3 formula. The figures given below should not be used with other developers.—Ed.

	Weston	Scheiner°	H & D
AFGA			
Plenachrome .....	6	16	228
Roll film and pack.....	3	13	110
Superpan .....	10	18	370
Super plenachrome .....	8	17	290
Fine grain plenachrome.....	6	16	228
Memo .....	6	16	228
Defender			
X-F special .....	10	18	370
Panchromatic .....	6	16	228
High green sen. ....	10	18	370
Du Pont			
Superior panchromatic .....	10	18	370
Pan and 16 m.m. panchromatic.....	5	15	179
16 m.m. special panchromatic.....	10	18	370
Micro .....	2	12	86
Eastman			
Super sensitive panchromatic.....	10	18	370
Portrait pan .....	6	16	228
N. C. film pack .....	4	14	141
Verichrome .....	6	16	228
Panatomic .....	4	14	141
Perutz			
Persenso .....	10	18	370
Lieca special .....	3	13	110
Fine grain roll.....	5	15	179

Most of the emulsions of the present day will give good separations over a contrast ratio of 1:128 or more. The contrast range of medium bromide papers run about 1:64. (see Camera Craft Nov. 1933 for method of obtaining contrast ratio of paper).

Figure 1 shows a very flat subject given a normal development and printed on a 1:64 bromide paper. The light reflected from the doors was 16 foot candles, from the bricks, 40 foot candles and from the fresco work above the doors, 50 foot candles. This gives a ratio of only 1:3.3. These readings were made at about one foot from the parts named. The camera was placed thirty feet away and the general overall light reflected was 80 foot candles. Setting the weak contrast pointer of a Weston meter at 80 foot candles indicated, an exposure of 1/25 second at f9.





Fig. 1



Fig. 2

The film being used was Du Pont superior (Weston No. 10 with this developer). This was developed for 24 minutes at 68°F., giving the tank a good shake every two minutes. In figure 2 we have the same subject photographed exactly as in figure 1, but it was developed for 41 minutes. When printing the negative used for figure 1 on a contrast grade of paper a very suitable print resulted. In this case selective development was an advantage. When using cut film it is possible to control contrasts to some extent by varying the development time. This can be done with roll films to some extent by starting the development in the strip form, then cutting the exposures apart when they appear. With the camera using motion picture film this method is hardly practical.

A suitable method of obtaining the proper developing time for any given grade of paper is to choose a scene that has about the same contrast ratio as the paper that is to be used. Example: We find a well lighted scene giving us a reading of say 800 foot candles on the brightest object and say 12.5 on the darkest. This will give us a ratio of 1:64. In the event that we use a meter that reads in exposure time only, such as the Bewi, you may obtain the contrast ratio by making a reading of the darkest and lightest objects as with the foot candle meter. The scene above would probably read 1/25 second at f2 on the dark part and 1/25 second at f16 on the bright. Square each and divide the large number by the smaller,

$$2 \times 2 = 4$$

$$16 \times 16 = 256$$

$$256 \div 4 = 64 \text{ or } 1:64$$



Fig. 3

Such a scene would be within the printing range of a normal bromide paper, so we will make about five exposures on it, giving each the average exposure of  $1/25$  second at  $f\ 5.6$ . For the faster films we would remove one exposure from the developer at the end of 12 minutes and one every 4 minutes, thus making the last receive 32 minutes. With panatomic the first exposure should be removed at 10 minutes, followed at 2 minutes for the rest. Start with say 5 minutes with Du Pont micro.

Make the best possible enlargement from each negative on the paper that you desire to use and from that you will be able to choose the correct average developing time. Bear in mind that excessive enlargement increases contrast slightly, hence it might be wise to work a little on the soft side.

After long and tedious experiments, I find the following developing times are suitable:

	Medium	Soft	Hard
Panatomic .....	12	10	16
Du Pont Micro.....	7	$5\frac{1}{2}$	10
Eastman super sensitive.....	24	17	32
Du Pont superior .....	24	17	32
Agfa fine grain plenachrome .....	24	17	32
Perutz persenso .....	20	15	28

The times are based on a temperature of  $68^{\circ}\text{F.}$ , giving the tank a good shake every two minutes. Some workers fail to realize the difference that agitation makes. In order to obtain uniform results the two-minute standard was chosen. It must be understood that these times are for a long scale subject, to be printed on a medium contrast paper. In the case of figure 1 the normal time of development was not sufficient for printing on a 1:64 ratio paper, hence it was desirable to step up the contrast by a prolonged development.



Fig. 4

When working with the roll film (35mm included) type camera, making pictures as they come it is impossible in the most cases to develop for each individual exposure, so it becomes necessary to give a medium development and to make the needed corrections by the use of a soft or contrasty grade of paper. However, if you are just making a few exposures on the same subject without altering the lighting, then you can exercise some control, as was done in the case of figure 2.

In figure 3 we have a long scale subject photographed on what most people say is a rather contrasty film, Panatomic. The light reflected from the white part of the building was 1300 foot candles, while 16 foot candles was reflected from the shadow portion under the bush just in front of the lady. This gives a range of about 1:81. This print was made from a negative receiving an exposure of 1/20 second at f 9, and was developed for 12 minutes at 68°F. The print is on "Brovira" medium glossy bromide paper, and was developed in the formula recommended by the manufacture for exactly 1½ minutes. Figure 4 is the same subject given 1/20 second at f 14. The negative received a 24-minute development, but in all other respects the treatment was the same as for figure 3. This exposure (1/20th, f14) would have been ample had the film been developed in the formula recommended by the manufacture, which is the well known D-72 paper formula. The two prints demonstrate the necessity of correct exposure, which should be full, but not excessively long, when using para phenylenediamine.

Figure 5 represents a 1:100 ratio subject. The ball is lighted by strong spot only. The support is black cardboard. The ball was white, with a red and a blue strip running around the middle. The negative material was Du Pont superior film and it received a 24-minute development in the Sease No. 3 developer. The print is "brovira" soft.

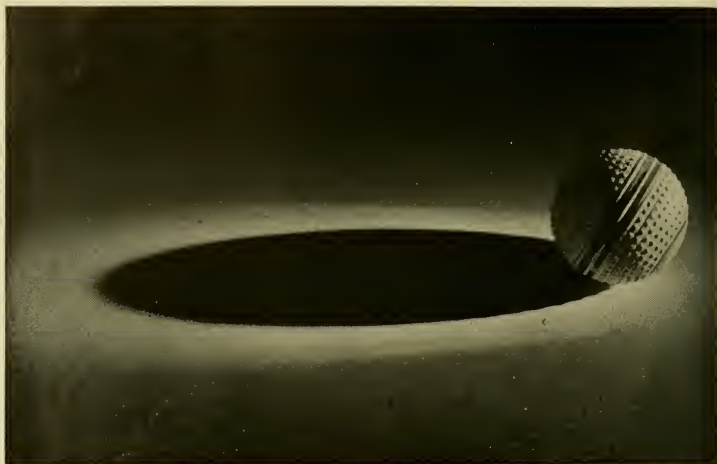


Fig. 5

A paraphenylenediamine formula that has been highly recommended by Mr. Arthur Purdon for developing panatomic film is as follows:

Water .....	1 liter
Sodium sulphite .....	75 grams
p-Phenylenediamine .....	10 grams
Ammonium carbonate .....	0.5 grams

The ammonium carbonate is best made up in a 10% solution, 5ml. would then contain the required one-half gram. The writer's experience with this formula has been that the added alkali increases the grain and that in other respects it behaves similar to the Sease No. 3. However, it is given here in the case you want to experiment with it. The time of development to obtain a negative of gamma 1 is about 30 minutes at 65°F. This would be a "snappy" negative which would probably have to be printed on a soft paper.

It seems to be thought that metal containers or clips cannot be used in the presence of p-phenylenediamine. This does not seem to be the case as the writer uses a rello tank which he presumes to be made of monel metal. Of course copper or zinc must be avoided, which is true with any developer.

# An Exposition of My Photographic Technique

Ansel Adams

NO other form of art is technic more closely interwoven with the artistic *rationale* than in photography. Conception is so dependent on the awareness of every phase of execution that technical mastery by the photographer is necessary, and considerable technical understanding on the part of the spectator is a decided advantage. In itself, the technic of photography is capable of producing a profound emotional reaction; I frankly believe that a photograph is meaningless in terms of art-expression unless the technic is of a very high order. By *technic*, I refer always to the purely photographic methods involved in the production of photographs; I have nothing in common with "Pictorial" aims and means, and I consider all phases of manipulation of negatives and prints, all diffused-focus, retouched, etched, colored, multitone or pigmented images entirely beyond the strict limitations of the photographic medium. Photography, as a pure medium of art, does not admit conceptions that are reminiscent of other mediums,—painting, lithography, aquatone, etc. Perhaps unconsciously in most cases, the Pictorialist has inclined towards the effects of these various other art-forms and has failed to achieve the *substance* of them or of photography itself.

The purpose of these articles is to present to the readers of CAMERA CRAFT the outlines of a technical procedure that is of the utmost simplicity and always *photographic*. It is the technical procedure I follow in the production of my photographs—an individualistic approach it is true, but one that can be substantiated by the photographs themselves. I will carefully avoid generalities in the presentation of technical facts, but I will also avoid all phases of technic that are not actually employed in the production of photographs; discussion of optical formula and of the complex mysteries of organic chemistry does not bear on the problem at hand. I am aware that my statements will excite a great amount of discussion, and I freely admit logical variations to any and all of the principles of technic indicated in these articles. I desire to prove that photography is not dependent on encyclopaedic knowledge of optics and chemistry, or on employment of the myriad formulae and clever tricks that clutter the literature of the medium. There is indeed a gulf between



the simple—almost stark—equipment of a Stieglitz or a Weston and the optical and chemical collections of the average camera enthusiast. I believe that many workers are more interested in the armaments than in the campaign. However, I am of the opinion that the photographer should possess all the equipment he needs—and that equipment should be of the best. Many of Weston's most important photographs were made with an R.R. lens and an 8x10 camera; apparatus adequate for his subject material. But in the case of Architectural photography, for instance, a fine Anastigmat is necessary. It is important that the photographer has a clear conception of what he is aiming for in his work, and that he reduces every element of his equipment and method to the most simple and efficient degree.

Before discussing the problems of equipment, method, etc., let us consider some of the basic requirements of a fine photograph. Let us develop the theses from a clear understanding of the advantages and limitations of the medium itself as an accepted form of art.

1. Photography is an *objective* expression; a record of actuality. The photographer who thoroughly comprehends his medium visualizes his subject as a thing-in-itself. He does not impose qualities foreign to the actual basic qualities of the subject, but he defines his conception of the qualities of the subject through his medium. He visualizes, before operating the shutter, the completed photograph. In order to do this consistently, he must be aware of every phase of technic. From the time of exposure, to the mounting of the print. The artistic aspects control in the selection of subject, point of view, conception of interpretation and its visualization as a completed photograph; thereafter, good taste and good craftsmanship control in the production of the result. Every link in the chain of production is vital in its contribution to the completed picture.
2. Photography has certain capacities for expression that none of the other art mediums possess. What I choose to call the microscopic revelation of the lens is perhaps the dominant characteristic of photography as differentiated from the other mediums. The utmost refinement of texture demands adequate optical equipment, accurate exposure and processing, and smooth papers. It rejects diffused focus images, careless manipulation of lenses and apparatus and rough papers. Texture—strictly photographic texture—is abandoned in Bromoil, Gum, Transfer processes to a large extent, and in the use of paper negatives. Hence, all methods that obscure the most subtle quality of good photography—the rendering of minute textures—serve only to defeat the purity of photographic expression.
3. Closely associated with texture are tonal values. A photometrically accurate presentation of the subject might be quite disturbing to both the artist photographer and the sensitive spectator. It is here that one discovers the turning point in the argument on photography as a fine art. And it is here that the supreme justification of a pure technic is found. The emotional elements of form, texture and tone must ever dictate the significance of the medium; form defined objectively, texture and tone combined to suggest substance and controlled photographically. One can conceive of a technically and mechanically





"An Arrangement"

Ansel Adams

Data: 8x10" Folmer Universal; 9" Goerz Dagor; long exposure at F 45 by skylight indoors, on E.K. Portrait Pan in A.B.C. Pyro. Contact print on Vitava Projection F 2 in Amidol.

perfect photograph that would be revolting as a work of art. But one cannot conceive of a photographic expression in terms of art wherein the technic is inferior. Tone is entirely a relative quality; it is in the right *depth* of tone that the emotional effects of photographic values exist. Texture is dependent upon tone; texture without tone is merely detail. As in music, certain harmonies are most effective in certain registers. Only the artistic sensibilities of the photographer can define this proper relationship; once defined and visualized, the technic must be adequate to present it.

4. I am not considering in these articles the problems of composition and design. That is a field in itself which is outside the purpose of these essays. But in the discussion of photographic problems under the headings of various subject-types I will occasionally relate composition to technical procedure as the two are often very closely associated.

Equipment: As a professional photographer, I am called upon to effect many types of work. I therefore require a mere extensive apparatus than would one who concentrates on landscape or portraiture. At present my operating equipment is as follows:

8x10 Folmer Universal	Small lever
4x 5 Korona View	Transparent ruler
4x 5 Speed Graphic	Focusing magnifier
18" R. R. lens	Two before-the-lens shutters (one electrically synchro- nized)
12" Goerz Dagor	Focusing cloth
9" Goerz Dagor	Two double-circuit portable lights
4½" Goerz Dagor	Filters and Filter holders
7" Colinear Wide Angle	
6" Zeiss Tessar F 4.5	
Heavy motion picture tripod	
Light Crown tripod	

Every lens except the 18" R.R. is interchangeable with all three cameras. I will repeat the statement that the photographer should have nothing on his hands that he does not use. To have two or three lenses that do the same work is inefficient. It is better to learn the operation of one fine lens and stay with it. In the following articles I will take up the matter of lenses and their use in detail as the occasion requires.

I will also go into detail regarding the use of filters later. Filters are usually not understood and grossly over-applied. I cannot over-stress the importance of *solid* tripods; the motion-picture tripod permits me to make very fine adjustments of camera position and supports the 8 x 10 camera most adequately. Watch for pin-holes in bellows and for dirt on and in lenses and cameras and cases. Cleanliness of apparatus is very important, practically and psychologically.

Negative material is selected largely on the accidental inclinations of the photographer. There are many fine brands. The problem however is not *what* brand to use, but *how* to use a chosen brand. Do not shift from one brand to another, as accidental good points are revealed in the various makes. It is of the utmost importance that the photographer concentrate on a thorough understanding of his negative material, and it is



"Board and Thistles"

Ansel Adams

An Objective Composition from Nature

Data: 8x10" Folmer Universal; 12" Goerz Dagor; 1 sec. at F 64, on E.K. S.S. Pan, in A.B.C. Pyro with  $\frac{3}{4}$  normal carbonate; Contact print on P.M.C. No. 10 medium, in Amidol.

better to know all about one make of film than to constantly experiment with diverse brands. I have been able to obtain identical negatives from several makes of film. I use Eastman Portrait Panchromatic and Super-Sensitive Panchromatic film almost entirely, and find them entirely adequate. I have been able to make reproductions from charcoal drawings on Super-Sensitive Panchromatic film that were gratifying in their accuracy of tone and contrast. It is only for the most extreme contrast that Process Film is necessary, and such contrast is not required in photography such as I am discussing in these articles. There are many phases of photography that are purely mechanical that have absolutely nothing in common with art-expression. They are fields in themselves.

The same applies to papers; concentrate on as few varieties of paper as possible. All my photographs are printed or projected on glossy, double-weight Bromide papers, PMC, Vitava Projection, and Defender Velour Black. I have made an effort to understand these papers and what they will produce, and it is hardly ever necessary that I use others.

As for developers: I use Pyro A B C formula for negatives and Amidol for prints. I never intensify or reduce unless absolutely necessary in order to save some unfortunate for practical reasons. I will discuss developers as the occasion arises in the later articles. I keep my fixing bath very fresh and wash films and prints until they pass the Permanganate test. It is very surprising how often one hour's washing is insufficient to remove the hypo. In testing, I not only drain the prints into the Permanganate solution, but I *squeeze* them. If the solution does not react within a minute, I know the prints are adequately washed.

The films are hung on clips to dry, and I never use artificial means to hasten the drying process. The prints are drained and laid face down on cheese-cloth stretchers to dry; after drying, they are pressed between cardboard. I mount the prints by the dry-mounting process on smooth, white bristol board. It is important that the surface and tone of the mount bears some relation to the surface and tone of the print. Spotting is done with India-ink and a fine brush. As yet, I have been unable to find a spotting material that will not show on glossy papers when held in certain ways to the light. Under glass, however, good spotting becomes invisible.

Photographs, especially on glossy papers, should be seen under glass. The glass serves to aid in the *isolation* of the image from its support—the paper itself. There is nothing in common with paper surface and the image produced by the lens. All such associations are purely ideological—the product of the romantic era of photography. Possibly the chief advantage of glossy papers apart from the preservation of detail, is the amount of reflection of light—or, to put it another way, the low light absorption of glossy papers obtains the maximum brilliancy of image. Photography, as Wilensky says, is the means of producing pictures by *light-and-shade*; a photograph lacking the conviction of *light*—of light as reflected from the subject itself, is therefor an anachronism.

The following articles will relate more to practical details. But I ask the reader to always bear in mind that formulae and methods have no real existence apart from the ability of the individual to use them. All my statements are of a provocative nature—I am merely setting down





"Kearjarse Pinnacles"

Ansel Adams

Data: 4x5" Korona View;  $4\frac{3}{4}$ " Goerz Dagor; 1/10 sec. at F 32 on E.K. S.S. Pan with K1 filter; A.B.C. Pyro; Enlargement on P.M.C. No. 10 medium, in Amidol.

my own technical procedure; while I feel it is entirely consistent with the rational of photography, I know that the individual must build his own structure of taste and technic. It is my hope that these short articles will do their bit towards a more precise understanding and application of an accurate and logical photographic technic.

---

*Next month Mr. Adams will discuss the technique of landscape photography, with special emphasis on the photography of snow scenes, and the proper use of filters.—Ed.*

# Pictorial Portrayal of Snow

Edwin C. Buxbaum, A. R. P. S.

**S**NOW pictures are perhaps the most satisfying of all the subjects which the photographer tries to portray as some part of visual beauty. The snow picture is so decidedly beautiful when well done that immediate appreciation is the reward of any pictorialist who captures some of this transient and fleeting perfection. And very few beautiful snow pictures are obtained. There are many reasons for this. First of all, the photographer may not have the time to get out and expose his negatives—snow often comes during working hours and has the peculiar irritating property of often coming on Monday mornings. Then again, the time during which pictures may be properly exposed is almost half or less of the time available in summer. The day may be cloudy with the absence of the magic sun that makes all the difference between a snap shot and a masterpiece. Or you may be tired or asleep.

There is no doubt that snow is a subject which is very aptly called a photographic subject. While snow has been very skillfully portrayed by painters in oil and water color, photography has a very decided advantage over other arts in the delineation of snow. Photography alone can reproduce the infinite variety of tone and shadow that occurs with such sparkling brilliancy in a well lighted snow scene. The photographic emulsion is at its best in a scene of such nature. It is for this reason that photographers should especially strive for beautiful snow pictures—no other artistic medium can portray snow like a good photograph.

Winter photography requires warm clothes. No one can appreciate nature no matter how beautiful, if one is cold and chilled. Warm dress, but not cumbersome, similar to skating costume is perhaps the most convenient and efficient. The arms and legs must be left free for the usual photographic work. And above all, real grandmother's advice—keep your feet from getting wet. Two pairs of socks and galoshes for a cold day makes an ideal combination. If you prefer, oiled boots will do very well. Equipped in this way, you are ready for a day of snow pictures.

When taking snow pictures, it is convenient to go from place to place with a car. If you have a heater in the automobile, you may leave this running part of the time when you are taking pictures. It makes a convenient haven to change film. There is nothing so trying as changing roll films on a day when the thermometer registers zero. And then, you will want to warm up now and then anyway.





Edwin C. Buxbaum, A.R.P.S.

Any kind of equipment may be used. A Graflex is quite ideal in many ways but is bulky. Roll film cameras are rather objectionable when it comes to changing rolls but are otherwise convenient. Miniature cameras are quite ideal for this kind of work. Practically all cameras of the miniature type contain at least 16 exposures and the Leica, up to forty, which is a great convenience when the fingers are numb. For the person who does not like to work with a miniature camera, there are the film pack cameras which work out very well.

What kind of film is best? That is a hard question. The general consensus of opinion seems to be that a panchromatic film with a yellow filter is best. The brightness of most snow pictures makes short exposure possible even with a relatively heavy filter. What is called a two times filter is usually heavy enough for most snow work. There is no doubt that a snow scene contains many blue and violet shadows. If you wish to see this, focus on a ground glass with the filter on the lens. Remove the filter quickly and the snow scene will stand out before you as if entirely composed of blues and violets. It is a very pretty demonstration and convincing.

An important accessory for snow pictures is the sun shade. Without this little device, it is impossible to obtain brilliant pictures which are the essence of good snow photography. A fogged and veiled snow scene

is absolutely valueless. Another important accessory is an exposure meter of the visual photometer type like the Bewi or Justophot. Snow scenes are very deceptive as to their light value and a meter is necessary for accurate readings. Perhaps you will be surprised at some of the readings you get on a brilliant snow scene which you judge should be one twenty-fifth at F.16 and which the meter says, one twenty-fifth at F.6.3. But, follow the meter. If you are planning to take pictures in which falling snow has a part, you will need some kind of shelter, an awning of some kind, and umbrella or other guard. A tripod should also be carried as exposures towards evening may be quite long. Make sure your tripod is solid and not one of the kind that bends and strains.

The best time to make snow pictures is probably between ten and two in the afternoon when the sun is well in the sky. Beautiful effects with long shadows can be obtained either in the evening or morning. The presence of the sun is an important requisite for brilliant snow scenes but is not absolutely necessary. Pictures of somber mood can be obtained on a cloudy day, however, and there are always shadows even if the sun is not out. With a bright sun, however, sparkling snow, and brilliant shadows, the possibilities for fine snow pictures are much greater.

Snow can be treated as a texture picture, that is, one in which snow alone is portrayed as a medium. This is the hardest of all pictures to take as it involves a range of tones in high key. When properly done it is very effective but difficult to capture without looking chalky.

There are many different kinds of snow. First of all, there is the brilliant sparkling snow crusts which result as the snow is alternately melted slightly and frozen again. When the sun shines on it, it reflects millions of different facets which are hard to capture on the film. Easier to portray is the soft flaky snow that falls on a mild winter's day. It is very feathery and light and must be photographed before the wind and sun do their work. Oftentimes, such snow effects will have disappeared by the time the photographer gets to the scene if he waits a couple of hours. Sleet effects with ice glistening on every branch of every tree are extraordinarily effective but come, perhaps, twice a year and are soon gone. The early and late hours when the shadows are long, and, the light, yellow and weak, are good hours for the snow pictorialist. Exposures will have to be long. The beauty of a fading sun upon a cold, frozen snow scene is comparable to the last dying notes of a symphony and as difficult to interpret.

The composition of snow scenes is a matter of choosing your viewpoint the same as in many other subjects of photography, especially landscape photography. You can make a simple landscape of your snow scene or introduce human figures. You can use streams, houses or trees as your compositional material. If you have no paths or streams in your snow, you can often make a path just as you wish it by tramping through the snow over a certain route a few times. The snow picture in which you have falling snow is another matter.

The lens will have to be protected first of all with some kind of a guard. The aperture opening will have to be quite large so that a sufficiently short exposure can be given to catch the falling snow at such a



From Salon Champions Exhibit

Edwin P. McMurtry, A.R.P.S.

point that fog-like effects are not obtained. The realistic picturing of a snow storm is good exercise for the pictorialist.

Subjects for winter and snow photography are very numerous. To mention a few, there are the picturing of the different kinds of snow, trees and snow, footprints of animals, birds and squirrels with a snow background, the full majestic snow landscape, streams in snow, the city in snow, snow on roofs, falling snow, genre pictures in which snow plays a part like a newsboy selling papers on a cold night, horses pulling wagons, Christmas crowds, beggars and many other subjects. Icicles should not be neglected nor lakes where iceberg-like formations form along the shore. Intimate pictures of snow around the house, like the first snow of the season on the window sill, snow in the garden and a host of others.

To any who lack ideas about what to picture in snow scenes or any other subject for that matter, let them find a book of quotations in the library and look up snow or the subject which they wish to portray photographically. They will find such a wealth of suggestion and information that they will lack only film to carry out all the ideas. These quotation books are good sources for the pictorialist who rebels against going out and trusting to luck to help him find his masterpiece instead of creating them first in his mind.



"The Ascent"

Harald Lidell

17th Annual Los Angeles Salon

The final working up of the snow negative is done in the usual way. There are certain papers which give more of a snow effect than others. As snow scenes reflect much light and gain some of their brightness thereby, it is a reasonable action to print them on paper which simulates the actual scene. This may mean a glossy paper. A paper like "crystal stipple" gives an appearance very much like snow itself. A dead matte surface can also be very effective for the portrayal of the delicate tones of snow. Cream papers are not usually used although some papers with an old ivory background give a degree of luminescence to a snow scene that contributes to its beauty. Snow scenes should not be colored, but if you must tone them, do it in blue and not sepia or green.

Snow photography embodies all the various advantages of photography as a hobby. There is the healthy, vigorous, outdoor exercise that brings the blood to the cheeks and a ravenous appetite. When the sun goes down in the west and the last exposure has been made, there is the pleasant thought of a warm meal—a cup of coffee and a pipe, with "Camera Craft" for a companion. Afterwards, there is the developing of the negatives, for, no true enthusiast waits longer than a few hours to develop his negatives. And, when the final print has been made, and hung,—you have something, my boy, you have something.

# Correspondence

## More About Projection Control

Dear Mr. Young:

The following is an answer to your request that I explain certain points in my recent article on "Projection Control".

First, how is it possible to tell what portion of a picture is being locally printed when the image is blotted out save for one point of light. The answer is that the image appears on the perforated cardboard used in the operation. This image—though somewhat out of focus—is sufficiently definite to guide one accurately. I might add that it is well to closely study the image and, as it were, rehearse the intended manipulations several times before placing the sensitized paper in the frame.

Second, is it feasible to use for local printing, instead of the perforated cardboard, an Eastman orange printing mask with a hole cut in it? It is, of course, a possible method, and one that I have used, but in practice I have found it less satisfactory than the procedure outlined in the article. In using the orange mask, there is a duplication of images, one on the mask and one on the sensitized paper, which is a possible source of confusion.

Finally, specific directions for controlling the size of the aperture in local printing. This is rather difficult to do without a demonstration, and is, in fact, the sort of thing that is best gotten by personal experiment rather than from accurately followed directions. However, I'll make the effort. . . Face the shelf or table that carries your enlarger (assumed to be of the horizontal). On the left is the enlarger, on the right the printing frame. Hold the perforated cardboard with the right hand vertically in front of the printing frame. With fingers of the

left hand mask the hole till only a thin crescent of light passes through. By further manipulations you can reduce the crescent to a mere pin-point. The same procedure is followed with a vertical enlarger, save that, of course, the cardboard is in this instance held horizontally.

Experimenters who have gone grey headed and slightly balmy from trying to follow my directions may find some consolation in knowing that the author has attained the same condition from trying to write them.

Yours very truly,  
WILLIAM MORTENSEN.

## Competition Comment

Dear Sir:

"Guten Morgen, Frau", by James D. Le Cron, is a lovely bit. It might have been improved had the taller figure been managed better. As it stands the edge of the stone masonry, in the background, seems to rest upon the woman's head and therefore catches the eye.

Mr. Oelman's "The Captive" is such a fine thing that it seems a shame that he has allowed it to be marred by two or three very minor things which might easily have been corrected. The darkening of the background creates a halo effect which is bothersome. I would like to see it more broken, more subtly done. The model's right arm would have appeared to better advantage had the elbow been very slightly bent. Perhaps it is the fault of the reproduction, but it appears that the highlight area on the checks is a bit too strong for that falling upon the forehead.

K. Wakasa's "Contemplation" is deftly handled and while it has not the emotional appeal of Mr. Oelman's beautiful

(Continued on Page 38)





"In Old Japan"

F. Y. Sato, A.R.P.S.

Advanced Medal Print

■ F. Y. Sato's "In Old Japan" is perhaps most correctly described as a decoration. It affords a splendid example of perfection in composition. Aside from interesting subject matter, the whole appeal of this picture lies in the finely adjusted relations of its various parts. There is just enough foliage to break up and balance what would otherwise be a monotonous background. The lamp provides an accent that is in perfect harmony with the rest of the picture, and also a sense of the third dimension that would otherwise be missing. It is interesting to note that there is almost always a wide difference of opinion as to how to correct a picture whose composition is not right, but that a perfect composition is almost universally accepted as such, even by those who have had little experience in evaluating pictures. A perfect composition "clicks" and that is all there is to it. If the above is true it would seem to prove two things. First, the great importance of good composition in picture making. Second, that composition implies more than a rigid application of rules, goes beyond a purely mechanical adjustment of weight and measure. In the last analysis it implies a refinement of the individuals sensibilities to the point where he instinctively "feels" what is right.

Data: 5x7" View; 8 $\frac{3}{4}$ " Goerz Dagor; 2 sec. at F:5.5 on E. K. Portrait with 2000W mazda lamps and Arc spot light; Pyro-Metol; Opal T print from paper negative.



"The Shadows Lengthen"

W. C. Day

Amateur Medal Print

■ We are confident that Mr. W. C. Day is well on the way toward establishing an enviable reputation as a landscape photographer. Our other judges apparently agree with this as it was unanimously decided that henceforth Mr. Day should compete in the Advanced Class.

"The Shadows Lengthen" demonstrates Mr. Day's ability to sense the beauties of the country side and portray them in the proper mood. For our own instruction suppose we idealize this picture, imagining how it might be if the photographer had complete control over every element. We would decree that the group of trees must be considerably taller and that they must round off at the top to eliminate the horizontal line running along the top of the trees, that is now too evident and seems to give a squat appearance to the print. Trees such as we describe would add a sense of majesty, stateliness, and grace to the picture, because of their size and because they would further dwarf the tiny figures. A lower camera angle would help a little in this respect but the principle advantage of such a move would be the raising of the figures in the picture space so that there would not be a line running through the heads. We don't think lines should be permitted to do that. We wish the upper quarter of the bushes at the left were not there. They are rather awkward in shape and detract considerably from the strength of the trees. We believe that the large expanse of sky also works against our desire to impart additional importance to the trees. To get back to the realm of possibility, what can we do to improve this picture. We can trim from the right in to the shadow cast by the higher roof of the barn. The area trimmed away performs no useful function and it is generally best to avoid a falling off in tone at the edge of the picture. We can trim from the left, eliminating about two-thirds of the upper quarter of the bushes previously mentioned and work out on the negative the small remaining clump that is above the level of the tree tops. With such a trimming it would help if the figures were a step or two further into the picture, but even without that the trimming seems advisable. We must also trim about two-thirds of the dis-

(Continued on next page)

tance from the top of the print to the top of the trees if we are to maintain our present cloud formation. However since our clouds are printed in we might select a pyramid shaped cloud with rounded sides, adjust it so that the peak would be near the top of the print about over the center of the group of trees with the base cutting the horizon line three or more inches in from either side of the print. Such a cloud formation would tend to carry out the feeling of height that we have been trying so anxiously to impart to the trees, and would eliminate the necessity of trimming from the top.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$  Auto Graflex;  $7\frac{1}{2}$ - $8\frac{1}{2}$ " Graf Variable; 1/30 sec. at F6.3 on S. S. Plenachrome, no filter; in M.Q. Borax; Velour Black in M.Q.; Clouds printed in from separate negative.

■ If there is any reader of these pages who has not yet schooled himself in the matter of printing in clouds let "Elemental" by H. F. Kells convince him of the desirability of speedily learning to do so. Such a lovely, harmonious combination of sky and landscape is hardly ever caught on one negative, so it is only by the combination of negatives that the photographer can work things out as he would like them to be. We have a feeling that the foreground is lacking in a sense of solidity. It doesn't look as much like plowed ground as we would like. Perhaps sharper focus and slightly deeper printing would correct this.

Data: Composite print on E. K. P.M.C. No. 7 in D-72; Landscape negative on Portrait Pan. with K2 filter; Agfa Anastigmat; 1/50 sec. at F:6.3; Sky negative on Portrait Pan.; K2 filter! 1/50 sec. at F:8.

■ George E. Jarvis has caught a wonderfully appealing expression in "The Skipper's Son". This picture powerfully portrays the innocent dependence and trusting, confidence of childhood, two characteristics which give children such a firm hold on our hearts. The picture space is not very well filled, and the face seems too low in the print, giving a sagging appearance to the figure. This could probably be corrected by trimming close to the hat at the top and adding an inch or two at the bottom. The idea of the title would be more surely carried out if the glisten and texture of the oilskins were more apparent.

Data: Popular Pressman Reflex  $3\frac{1}{4} \times 4\frac{1}{4}$ "; Aldis F:3.4, 7" focal length; 1/15th sec. at F:3.4, with 4 photo floods in home made lamp, one photo flood on shadow side. E. K. S. S. Pan. in A.B.C. Pyro; Bromoil on Defender White Rough Matt developed in E. K. D-72.

■ "Lake Villages" by Rustom N. Kharas is a nicely balanced composition with fine water quality and interesting subject matter. It would help a bit if the figure were facing into rather than out of the picture.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$  Dallmeyer Reflex; 1/25th sec. at F8; 2 P.M. June, on Isochrome film, no filter; negative and print in M.Q.; print on Agfa Brovira.

■ Edward Alenius has nicely caught the essence of old age in his "Eighty-Four With a Smile". The blankness of the left eye is rather disconcerting, and the high light along the bridge of the nose seems a bit over done.

Data: Outdoor portrait, 1/25th sec. at F8; Verichrome film; Fresson print from negative.

### Scoring for Club Trophy Cups

We were rather disappointed to find that only eight clubs were on tap for the first judging in this contest which will run for the next twelve months. However, we are encouraged by the fact that some prints arrived too late for the judging and will be included in next month's competition, and by letters from other clubs stating that they are planning to come in. Also, we suspect that a few individuals forgot to put club names on the back of their prints. For instance, isn't Mr. Alenius a camera club member? Remember that no club credit can be given unless the club name appears on the back of the print.

It is hardly necessary to state that the health and strength of every club is in direct ratio to the picture making activity of its members. Consequently it behooves all club leaders to interest their membership in every activity that will stimulate them to greater efforts. Take advantage of the incentive which this contest offers. Develop a spirit of friendly rivalry among your members. Let's all have a lot of fun out of this competition.

Four clubs entered the scoring column this month. Individuals making points for their clubs are as follows: H. F. Kells, for the Camera Club of Ottawa; F. Y. Sato for the Japanese Camera Club; W. C. Day, Stanley R. Jordan and H. S. Benedict for the Photographic Society of San Francisco; Charles T. Norton for the Schenectady Photographic Society.

(Continued on Page 36)



12

## ADVANCED JANUARY

14



13



5



Second: "Elemental", H. F. Kells

Third: "The Skippers Son", George E. Jarvis

Fourth: "Lake Villages", Rustom N. Kharas, A.R.P.S.

Fifth: "Eighty-four—With a Smile", Edward Alenius

## ADVANCED COMPETITION

January 1934

Contributors

Edward Alenius  
George Alsand  
Samuel Ames  
Eric Barnes  
John Birson  
Albert Budd  
Jean Burdon  
Herbert Carstairs  
Henry Collard  
Evelyn Curtis

George Danforth  
Horace Dutton  
Christine B. Fletcher  
Frederick Ganns  
Lionel Heymann  
G. Elwood Hoover  
Erica Insfourth  
George E. Jarvis  
H. F. Kells  
Rustom N. Kharas, A.R.P.S.

James De Le Cron  
Maurice E. Lemmel  
N. Matsumoto  
Richard H. Mercer  
John Muller  
H. P. Reynolds  
F. Y. Sato  
Herbert Turrey  
K. Wakasa  
Paul J. White

For a complete statement of the rules governing this competition see November 1933 issue. Rules will be sent by mail on request.



## Contributing Clubs

California Camera Club (S.F.)  
 Camera Club of Ottawa (Canada)  
 Crockett (Calif.) Photographic Society  
 Fort Dearborn Camera Club (Chicago)

Japanese Camera Club (S.F.)  
 Photographic Society of S.F.  
 San Jose (Calif.) Camera Club  
 Schnectady Photographic Society.

## Standing of Clubs

**Large Clubs Advanced Class**  
 Camera Club of Ottawa, 4

**Small Clubs Advanced Class**  
 Japanese Camera Club, 5

**Large Clubs Amateur Class**  
 Photographic Club of S.F., 8  
 Schenectady Photographic Society, 3

**Small Club Amateur Class**  
 No Score

■ "Pastoral" by J. W. Schuler, presents nature in a stark and somber mood. Mr. Schuler's principle achievement lies in recognizing a picture in rather unpromising material. We wonder how many of us would have seen it had we been on the spot. The center of interest is an important and necessary part of any picture. It is often the case that an otherwise pleasing landscape is deficient in this respect, and the fault can often be corrected by working in a few highlights at the proper place, as Mr. Schuler has done with this picture. It is always advisable to keep such modifications at a minimum or the work becomes too obvious, destroying the photographic quality of the print. We believe Mr. Schuler has erred on the side of generosity in creating his center of interest.

Data: 4x5" Premo; Rapid rectilinear lens; 1/50th sec. at F16 on E. K. Com. Ortho in M. Q.; Velour Black in M. Q.; Diffused in enlarging; toned in Velox Sepia Toner; Clouds printed in from separate negative.

■ "Tree Shadows", by Charles T. Norton. Shadow forms are always interesting material for the camera. We believe that there are two main points which should be kept in mind when making this type of picture. First, be sure that there is one dominant shadow form that will establish principality and give meaning to the rest of the shadow pattern. In this case the shadow of the tree trunk performs this function admirably. Second, record the texture of the material upon which the shadow is cast. Mr. Norton has been quite successful in giving us the texture of the brick wall. We would like to trim the print at the base so as to eliminate the white board that coincides with the edge of the print at the lower left. Its position, so close to the edge of the print makes it unduly prominent.

Data: Graflex; Zeiss Tessar 1-C; 1/10th sec. at F 11 on E. K. Portrait Pan., with K 1½ filter on bright day; D-76 (Borax) Vitava Opal D in E. K. D-64; Nelson Gold Toned.

■ Stanley R. Jordan's "Portrait" is decidedly in the modern vein. It leans toward the theatrical or illustrative type of picture rather than what is commonly accepted as "pictorial photography". For theatrical or illustrative use the picture would do very well for such pictures are looked at only a few times, consequently the staring eyes would not have time to become monotonous, but on the contrary would have an attention arresting force that is very desirable in such pictures. On the other hand "pictorial" photography should be able to stand the test of long association and we believe that this picture would fall down in that respect. We believe there is justification for supporting the chin in a closely trimmed portrait such as this, for if the neck line is carried down the picture is liable to have a top heavy appearance. However we do not like the exaggerated size of the hand and wrist, and in the absence of a lens of long enough focal length to record them properly we would resort to trimming about an inch from the base of the print to diminish the effective size of the wrist.

Data: 4x5" Graflex; 10" Carl Zeiss; ½ sec. at F:16, on E. K. Portrait Pan. in Pyro Metol, by Mazda lamps; Defender Velour Black, in Metol Hydrochinon.

■ The vibrating quality of sunlight is something that artists strive for in all mediums. Mr. H. C. Benedict has been quite successful in getting that atmospheric effect in this picture which we are sorry to say has no title. Slightly deeper printing would impart a desirable richness of tone that is lacking in this print. A few good deep blacks would be especially valuable in the right foreground as they would assist in giving a feeling of depth, and (by contrast) would emphasize the brilliance of the highlights.

Data: 3¼x4¼ Series D Graflex, 15 in. Cooke Telephoto, 1/5 sec. at F:22 with K2 filter on E. K. Portrait Pan. in Metol-Pyro, print on Vitava Proj. C2 in D52.





12

## AMATEUR JANUARY

14



15



Second: "Pastoral", J. W. Schuler

Third: "Tree Shadows" Charles T. Norton

Fourth: "Portrait", Stanley R. Jordan

Fifth: H. C. Benedict

## AMATEUR COMPETITION

January 1934

### Contributors

A. M. Armstrong  
 Ralph H. Anderson  
 Dr. H. C. Atwood  
 F. M. Beckett  
 Stewart Becker  
 H. C. Benedict  
 Cecil H. Biner  
 Hans Bothe  
 Carl Brandt  
 B. Brixner  
 E. J. Brown

Richard H. Brown  
 Robert N. Bushman  
 Frederick W. Butterlin  
 Roland Calder  
 J. Cantrell  
 Hunter J. Carr  
 Eduardo Carranza  
 Bernard J. Cassidy  
 Phillip Catlett  
 Sam Coslow  
 R. Covington

Edgar Davidson  
 W. C. Day  
 Carl Deutsch  
 Charles Ditchfield  
 Rudolfo Dresel  
 Fred Ellis  
 James Emmett, Jr.  
 Harlow E. Esselstyn  
 F. Fitschen  
 Fred M. Fling  
 John Fowsky

(Continued on Page 38)

**Competition Comment**  
(Continued from Page 34)

study, it is more successful as far as it goes. The worked in line at the lower right is bothersome both artistically and logically.

"The Sacrifice of Andromeda" suffers from reproduction. In touching up the shadow side of the figure, the engravers who made the plates have added to the width of the figure. As it stands the model has a swollen left side. Otherwise the reproduction is a remarkably good one.

I like the suggestion by **Camera Craft** that the door might have been left open slightly in Mr. Gretzner's "Entrance". This would further the interest in the subject and give ones imagination something to play with. A fine picture always leaves something to the imagination of the beholder.

As for the remaining prints, I feel that **Camera Craft** has left little unsaid for their betterment.

Yours very truly,  
H. F. KELLS.

Gentlemen:

I attach hereto Money Order for \$2.00, for which enter my subscription to your magazine for one year, starting with the January number.

The last few numbers of your magazine have been exceptionally good, the Harding and Mortensen articles especially

so. In fact, the word seems to have been passed around, for during the last two months the issues have been rapidly been bought up, whereas formerly back issues were always to be had at the local stores.

I sincerely hope you keep up to the high standard you have had in your last few issues, and hope that you will never again let your printer use such abominable cuts that looked like they had been taken from a child's rubber stamp outfit.

Very truly,  
WALTER SEHN.

Dear Sir:

... The members of the Chicago Camera Club desire to express their appreciation and congratulations upon the last two issues of **Camera Craft**. The articles in them and the improved appearance is splendid. Keep up the good work.

Very truly yours,  
CHICAGO CAMERA CLUB  
per Rene Lund.

Dear Sir:

... Your November issue is a gem. It was the topic of considerable favorable discussion at the camera club and our gang is not an easy one to enthuse. The December issue too is fine. Fred Peel's article seems to have made quite an impression and I'll gamble that it will start an epidemic of "shadowless" pictures. ...

Very truly yours,  
P. H. OELMAN.

**Amateur Contributors**  
(Continued)

Mortimer Friedman  
Nat Gaer  
James A. Galbraith  
E. C. Gillett  
G. V. Grauer  
Harold Gretzner  
Henry I. Griffiths  
H. A. Harris  
Viola Hawke  
Edgar B. Haines  
Marye C. Hicks  
Wm. Hoeterlin  
Mildred Holland  
Dr. E. E. Hutshing  
D. E. Jack  
Jerome F. Jacob

Stanley R. Jordan  
William Karsten  
Ernest W. Kestner  
Jimi N. Kharas  
Mary H. Layman  
A. R. Lindren  
P. F. Loope  
M. Margossian  
John R. Marshall  
Dwight S. McDaniel  
J. W. McManigal  
Gordon Michie  
Robert S. Mudge  
Charles T. Norton  
Don Kirby Oliver  
F. Owen Pearce

C. M. Pearson  
George B. Perry  
R. D. Pestonji  
Frank X. Reilly  
Ralph Rex  
Lillian M. C. Richtberg  
Herbert J. Scott  
J. W. Schuler  
James Simpson  
W. G. Sipe  
C. D. Slaten  
N. P. Smith  
W. R. Stillings  
M. Sundaram  
Allen Sweet  
Henry L. Washburn  
W. E. Wing

# Cinema Section

Edited by  
William A. Palmer

## Printers From Projectors

The achievement of fine grained silver images through the use of new emulsions and developers may well precipitate a renewed interest in the negative-positive method of film processing. There are certain advantages in this system, which is used in all professional movies, and we are prompted to take up the matter of printing cine positives at this time. A discussion of fine grain development for amateur cine film is in preparation and will appear in this department in the near future.

The printing of sixteen millimeter film which has been developed as a negative, instead of being reversed directly into a positive, is performed in commercial laboratories by special machines. A printing machine, however, is little different from the ordinary projector and it is quite possible to use the ordinary amateur projector as a printer. Certain minor changes and adjustments must be made on the projector, but these can be done in such a way that the apparatus is not damaged for its intended use.

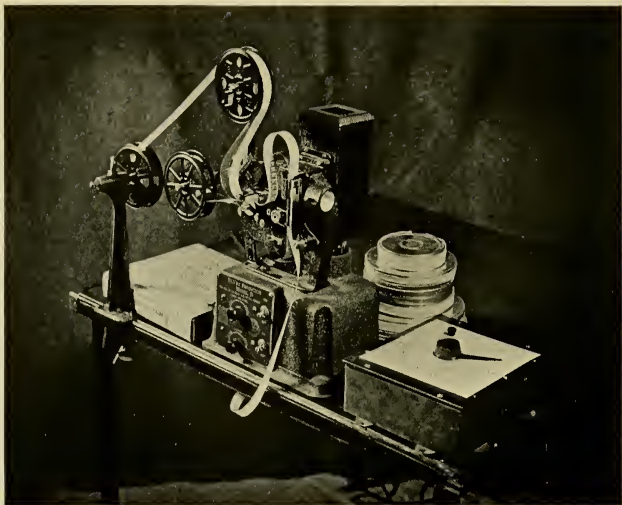
The following description and illustrations apply most directly to the use of a DeVry model D projector as a printer, but practically any other can be adapted as easily.

A study of the illustration of the projector-printer will give an idea of the threading of the two films through the mechanism. The light for exposing the positive comes from the regular lamp

house, but the regular projection lamp cannot be used. It is far too brilliant. Instead the projection bulb is replaced by an ordinary 6-8 volt automobile headlight bulb supplied by a transformer similar to those used for toy electric trains. The use of the low voltage lamp allows a very simple and inexpensive method of controlling the intensity of light by a rheostat. Of course, a 110 volt lamp could be used, but the controlling rheostat would have to have a comparatively high resistance and would cost more. An ordinary 1 ohm filament rheostat, commonly used in radio work, is used in this case and is mounted in a box as shown in the lower right hand corner of the illustration. By varying this resistance, the intensity of the printing light can be varied from nothing to full brilliancy.

The six volt bulb is conveniently mounted on the pre-focus base of a burned out projection bulb so that the filament is in alignment with the optical system of the projector and a small sheet of ground glass is placed immediately in front of the bulb to insure a uniform distribution of light over the printing aperture.

The aperture in the gate of the projector is filed out so that it is just slightly larger than the camera aperture. Thus, when the film is printed, there is a slight overlap of exposure at the frame line. It can be seen that, if the regular projection aperture were used in printing, the successive exposures would not quite meet,



William A. Palmer

leaving a white frame line between pictures. The operation of filing the aperture larger spoils it for future use when projecting, but in this case a new aperture is purchased to interchange with the enlarged one.

A knob with a large pointer and a dial are placed on the printer lamp control rheostat as the illustration shows. The dial is marked in numbers from one to ten, these being an arbitrary indication of the exposure given by the printing lamp. Most professional printing machines have fifteen to twenty light settings, but for most work the ten is adequate, since the total range of light values from the dimmest to the brightest is the same in any case. The professionals merely divide the range into smaller units. At each division or number on the dial is drilled a small hole to admit a peg, (shown in the illustration). This peg can be placed in any of the holes and the rheostat adjusted to the value by a quick turn of the knob until the pointer hits the peg. This change can be made very quickly, and there is no danger of moving the pointer past the position desired. The operation

of this idea in actual printing is as follows: Suppose a scene is being printed with a light intensity of a rheostat setting of 7. The next scene requires a rheostat setting of 4. Therefore the peg is placed in the hole at 4 and, when the time for the change of light for the next scene occurs, the knob is given a quick twist and the pointer is brought to a stop at the proper number as it hits the peg.

The indication for a change of light intensity is made by cutting a small semi-circular notch in the edge of the negative film. As the negative passes through the gate, a small roller rests on its edge and when an indicator or signal notch comes along the roller moves in, causing an electrical contact to close and energizing a doorbell buzzer. The buzzer circuit is supplied by the same low voltage source as the printing lamp. This is a refinement and is not absolutely necessary, for, if as the film is being printed, the fingers are placed on the edge of the film, the signal notch can be easily detected.

A few minutes with some "scotch" tape and black paper are necessary to plug up any stray light leaks that might fog the

unexposed positive film. Also, before the printer is put in operation the fire-shutter or still picture shutter is fixed out of the way so that the light from the printing lamp is unobstructed.

In the operation of the printer, the values of printing light intensity or rheostat setting are determined for each scene in the roll to be printed by tests or by comparison with negatives whose printing light values are known. At each change of density in the negative, calling for a different light value, a notch is put in the film. A written record is made of the sequence of the light values so that the rheostat may be set for the values as the scenes run through the machine.

The films are threaded as the illustration shows. The negative passes from a supply reel on the regular upper reel support, through the mechanism and to a take-up reel just as though it were being projected. The unexposed positive film then is threaded from a supply reel over the negative supply reel and thence through the mechanism, the emulsion of the positive being face to face with the emulsion of the negative with the negative adjacent to the light source. The two films now pass over the top of the feed sprocket and through gate. The loop of the positive between the feed sprocket and the gate is made larger than the loop of the negative so that the films will not interfere with each other. After passing through the gate, the positive is allowed to run down into a basket placed on the floor. The machine is operated at about half normal projection speed (Eight frames per second) to insure the proper

movement of the two films through the mechanism.

Any make of projector may be used as a printer, but of course some are adapted more easily than others. The Eastman projectors, models, B, C, and D, the Agfa-Ansco and other projectors can be successfully used in the same way as the DeVry mentioned above. The Bell and Howell projectors, the Eastman, models A and K, and the Ampro, can be used more conveniently if the printing light is placed in a special lamp house which is mounted in the position that the projection lens usually occupies. Thus the light for exposing the positive comes from the opposite side and the two films are threaded through the mechanism, emulsion to emulsion, but in the opposite order, the light passing through the negative to the positive. It can be seen that using a projector with the printing light in front, in the place of the projection lens, the shutter does not interrupt the light beam while the films are in motion. A shutter, however, in printing is really superfluous, for while the films may shift slightly with relation to each other when they are moved by the claws of the intermittent, the operation of moving from frame to frame is done so quickly that any distortion in the image is negligible. Using a light source in front, with the projectors mentioned, eliminates the necessity of disturbing the regular aperture of the projector. Instead of the regular aperture (enlarged) being used to frame the pictures, a special one is made to slip in the projection lens socket and restrict the light from the printing lamp to the limits of the picture area.

## The Home Projection Code

The presentation of home movie programs has been unsuccessful enough in many cases to prompt writers of social magazines to write pleasantries about a new type of social bore. The man to

avoid nowadays, according to the funny-bone ticklers, is not the man stocked with cute sayings of baby or a good abdominal operation experience, but the man who shows home movies!





William A. Palmer

There is little doubt that the most serious causes of stupid home shows are poorly photographed films. However, a good picture can be partially ruined by a poor presentation and a mediocre picture can be made to give a good impression with a good presentation. It is just these conditions that prompt Hollywood to arrange elaborate premieres for the new pictures, to give them a good send-off.

The other day it was our fate to be invited to a friend's home to see the premiere of some films taken on a trip recently completed. We arrived at the appointed hour and after a few minutes of chit-chat about the weather and other important problems, our host vanished to return in a short time with arms laden with projector, reels, and screen. Then commenced the interesting proceedings of setting up the equipment. The hostess suggested that the screen be placed above the fireplace, but the host pointed out that he thought the radio would be a better place because the screen wouldn't be so high. After a bit of controversy a compromise was reached and the screen was perched on the mantelpiece. A card

table was then produced and the projector assumed a doubtful equilibrium on the weak-kneed support.

After an interval of private search by the host for one of those things that you screw in so that you can plug in the projector cord, the reels were carefully rewound and the show was ready to start. The room was darkened and as we waited in the dim light of the projector threading lamp a flash of blinding white light struck the screen. Then followed a blurry image, partly on the screen and partly on the wall of the room. As the host manipulated gadgets on the projector, the fuzzy image went through a series of uncertain gyrations, finally becoming clear and resting on the screen. Now, we could read the first two lines of the credit title as the words were whisked away and the first scene came into view. Our host explained that the indistinct blurr had been the main title, now covered up on the take-up reel by several turns of film.

For the better part of an hour we viewed the scenes of the recent journey, a very pleasing record of interesting places and people. The film was well photographed, far better than the earlier

cinematic endeavors of this same party. The fire-hose technique of his first opus was entirely absent and the picture on the screen was very steady—except when the card table was poked. Then, the screen image would give a number of diminishing sweeps, finally returning to its original composure.

The show over, we sincerely congratulated our friend on a successful picture and returned home, secretly envying the ability of our host of the evening to make a film good enough to completely offset a very poor first impression. But here we brightened. Our own pictures might not be as good as the one which we had just reviewed, but we could exercise a little showmanship and make our films give a better impression even though the exposures weren't as good as they might be and the continuity a bit jerky. We made mental resolutions that thereafter we would not be guilty of starting our home premieres with two

strikes against them as our friend had done. We formed a code for home premieres under which we propose to work. It is summarized as follows:

The apparatus should be set up and adjusted before the guests arrive so that the first title or first scene will really be there, sharp and clear. The projector should be placed on a firm support, preferably at a height that will keep the beam of light of the projection lens from interfering with the heads of the audience. The chairs for the audience should not be too close to the screen; the best seat for viewing the picture is from the position of the projector. The reels should be rewound and in perfect condition. Finally a cardinal principle of professional projectionists should be enforced,—the screen should never be allowed to "go white". The white glare of the projector, without film in the aperture, gives a very bad impression as well as being hard on the eyes.

## **Selling Points - Points to Sell**

**John P. Lyons**

"What about 1934" is a question I am asked. On all sides, we find the free-lance photographer complaining of the scarcity of sales during this year just drawing to a close. Too often, we find the free-lance without an appreciation of the fundamentals of the publishing business, and therefore a lack of understanding as to the reasons for a lean or indifferent market. Publications exist for and by advertising. When the advertising in a magazine shrinks, the editorial content shrinks with it. And in the past few years there has been a lamentable dearth of advertising. Practically all magazines have been running "thin"—that is with little advertising, and consequently, little editorial content. Too many magazines have been unable to withstand the siege and so they suspended publication. Others reduced the number of issues, and weekly magazines were converted into semi-monthly and monthly issues. Many merged with others,

thus withdrawing one magazine from the market and killing the survivor, which invariably inherited a lot of material from the magazine absorbed. Editors, because of the lack of advertising revenue, have had their editorial appropriations reduced, and have had to "go to the safe" and use up practically everything that had been purchased in the past.

Appreciating these factors, that more or less reflect the market for editorial material, it has been easy to understand just why sales have been difficult.

But what of 1934. The portents are favorable. Business has recovered somewhat from the headaches of the past few years. Business has taken courage and the announced advertising appropriations for 1934 reflect increased expenditures for advertising. Then too—a vast, new industry has sprung into existence with the repeal of prohibition. Manufacturers of liquors and beverage will strenuously strive

for a market that does not know, or has forgotten about their respective brands. One advertising trade paper has taken a poll of the country's largest magazines and newspapers to ascertain those which will admit liquor advertisements to their columns—and the response indicates a preponderance of those who will. This, shall we say, practically new industry will expend millions and millions in advertising to capture the markets and that will help lift the magazines out of the doldrums. The publishers themselves have taken heart. Witness the debut of *Esquire*, a new 50c magazine of fashion for men. Announced originally as a quarterly, its reception met with such a hearty response, it now decides to come forth as a monthly. Healthy omen indeed. Many new publications are announced, and some sponsored by old, seasoned publishing houses who should know the trend. Witness, *Life*, sponsoring *Picture Parade*.

"But," you ask, "What has all that to do with you, me and the other free-lance?" Everything! When the publisher is doing a brisk business, he is trying to improve his paper. He combs his mail for the new, fresh idea. He'll grab up anything that has a spark of interest. And he will have to do some heavy grabbing for sometime to refill that vacancy in the safe, which he has depleted in raids over the lean period. 1934 should be a brisk, lively market because of these two factors—editors have cleaned up and out of everything that is usable. He will have to stock up again. And then, an absolutely predictable gain in advertising is assured which will give him the courage and the wherewith to purchase freely.

So I say—if you have become discouraged in 1933, on the poor results and the indifferent sales you have made—buck up. 1934 is undoubtedly going to be the year for the free-lance. Get out the old box, oil it up, and be prepared.

## Club Notes

### Forthcoming Exhibitions

- Fourth Syracuse International Salon. Address Kent C. Haven, 340 Montgomery St., Syracuse, N. Y. Entry fee \$1.00. Closing date Feb. 1, 1934 for the United States and Canada, Feb. 15th, 1934 for foreign entries.
- First Exhibition of Professional Photography, March 1-15, 1934. Address The Secretary, First Exhibition of Professional Photography, Rochester Athenaeum and Mechanics Institute, Rochester, New York. No entry fee, closing date, Feb. 15, 1934.
- San Diego, 4th International Salon of Photography. Address: Salon Committee, Camera Enthusiasts, 4225 Arden Way, San Diego, Calif. Entry fee \$1.00, limit 4 prints, closing date March 12, 1934.
- Annual Salon of Photography at Buffalo. Address C. A. Pierman, 528 Elmwood Ave., Buffalo, N. Y. Entry fee \$1.00, limit 4 prints, closing date Feb. 8, 1934.
- Seventh International Photographic Salon of Japan. Address, The Asahi Shimbun, Tokyo, Japan. Closing date March 15, 1934.
- Second Annual Princeton Photographic Salon. Address F. Quellmalz, Jr., 132 1901 Hall, Princeton, N. J. Entry fee \$1.00, limit 4 prints, closing date April 18, 1934.
- Fifth Brussels International Salon of Photography. Address, M. M. Devaivre, 152 rue Markelbach, Brussels, Belgium. Entry fee 5 Belgas, limit 6 prints, closing date March 15, 1934. Packages must not exceed 18" in either dimension.
- Fourth International Salon of Pictorial Photography at Syracuse, address The Syracuse Camera Club, 340 Montgomery St., Syracuse, N. Y. Entry fee \$1.00, limit 4 prints, closing date Feb. 15, 1934.
- 21st Annual Pittsburgh Salon of Photographic Art, entry blanks obtainable from the Secretary, Pittsburgh Salon, Box 64, Pittsburgh, Pa. Entry fee \$1.00, limit four prints, closing date Feb. 17, 1934, for foreign prints Feb. 3.

## California Camera Club

The past year could well be termed "the Renaissance of Pictorial Photography", at least as far as the good old California Camera Club of San Francisco is concerned. Jack Garnett, installed as President of that organization last April, was little known to many of his fellow club members, but to those who knew him personally, "J. S." rated as an ardent pictorialist—a man so imbued with the spirit of his hobby and such a proven leader in other organizations, that his heading the C.C.C. was watched with eager anticipation that there would be "something doing". And things have been done and more accomplished in a half dozen months than in many preceding years. The club rooms are busy with activities all the time. Why? Briefly these and kindred accomplishments. . . . Establishment of a school of photography as a first aid to the new and prospective members (and many were gained therefrom), insuring the student of ability that he would soon be able to work in the darkroom unassisted and to take proper pictures regardless of the type of camera; monthly merchandise awards for the print competitions; segregation of said competitions into advanced and beginners' groups; a Jury of Judges—F. Y. Sato, P. Douglas Anderson and John Paul Edwards to make awards in the same with criticism and comments on the prints; monthly talks by such men as Frederick Frey of the Allied Arts Guild, G. A. Young, editor of **Camera Craft**, Ralph Young, illustrator table top expert, etc.; building up of the Subscribing Membership to take care of the fellows having their own darkrooms; in general, the past months have been an attempt to make the club rooms a more attractive place filled with good fellowship, where every member would be as enthusiastic about his hobby as President Garnett himself. Accomplishment of that would surely place the old C.C.C. again on top of the world. It has climbed far in a few months, the coming year may see it again reach the peak.

## Leica Club of Chicago

On Friday, Dec. 8th the Leica Club had the pleasure of hearing Dr. Geo. C.

Poundstone, President of the Chicago Camera Club, talk on "Composition". He also spoke of the extensive use of paper negatives in photography to-day, explaining how to properly produce good paper negatives. Many questions followed from the members present. Two reels of motion pictures were run showing the manufacture of 35 mm film. This very interesting film was furnished through the courtesy of Eastman Kodak Company. It was quite astonishing to see the many stages that take place in the making of the film base itself and the steps that followed in the coating with the sensitive emulsion.

On Nov. 27th the Leica Club spent a very interesting evening as the guest of the Fort Dearborn Camera Club, at which time they had the pleasure of seeing an excellent exhibit of Leica photographs and hearing an interesting talk on how they were made.

On Dec. 1st the Leica Club turned out in large numbers to visit the immense Kaufmann & Fabry laboratories. After a most enjoyable evening all left thoroughly convinced that they had seen one of the most thoroughly equipped commercial photographic laboratories in America.

The next meeting of the Leica Club will be Friday, Jan. 12th, at the Stevens Hotel. The Leica Club of Chicago looks forward to a Bigger and Better year in 1934 and wishes every one else likewise.

## Chicago Camera Club

The course in Pictorial Photography which the Chicago Camera Club conducted during the fall term of the School of Photography for the advanced amateur from October 3rd to December 5th proved a success beyond all expectations.

There was an enrollment of 70 students, and that the course proved instructive and interesting as well as popular was evidenced by the fact that the attendance was kept very near the total number enrolled. It was noted that there was seldom more than three or four students absent from any one session.

The spring term of the School of Photography for the amateur will be held beginning some time in April, the exact date for enrollment to be announced

later. Judging from the applications now on hand, indications are that the enrollments for the spring term will be larger than the fall term.

During the month of December, Salon prints from the Philadelphia Camera Club were exhibited in the gallery of the Chicago Camera Club. The gallery of the Chicago Camera Club is open to visitors daily from 10:00 A.M. to 5:00 P.M. and evenings from 7:00 to 9:00 o'clock.

#### U. C. Photographic Courses

Mr. P. Douglas Anderson, Photographic Instructor for the University of California Extension Division, will continue to make pictorial photographers out of the veriest tyro in a remarkably short course of instruction. As proof of the pudding we might mention that Christine B. Fletcher, W. C. Day, Wm. E. Wing, James MacBride, and several others whose prints often receive awards in **Camera Craft** competitions are graduates of these classes. The following classes are announced to begin the spring term:

At 540 Powell St., San Francisco

Junior Class: Thurs., Jan. 11th, 7:00 to 8:30 P. M. 10 lectures, one night each week, and several Sunday field trips.

Advanced Class: Monday, Jan. 8th, 7:15 to 8:45 P. M. 10 Lectures one night each week, and several Sunday field trips.

At 1730 Franklin St., Oakland, Calif.

Junior Class: Friday, Jan. 12th, 7:15 to 8:45 P.M. 10 lectures, one night each week and several Sunday field trips.

Darkroom Technique: Wed., Jan. 10th, 7:15 to 9:15 P.M. A laboratory course of 10 lectures with practical demonstration.

The public is invited to visit the first meeting of each class without obligation.

#### Ansel Adams Gallery

Opening Dec. 11th Ansel Adams is showing a collection of his photographs of Yosemite Valley in Winter, at his gallery at 166 Geary St., San Francisco.

## Notes and Comments

#### New Eastman Camera

A process by which files of newspapers may be preserved for posterity on photographic safety film was described October 18th by Charles Z. Case of the Eastman Kodak Company to the newspaper librarians meeting in convention at Chicago with the Special Libraries Association.

Mr. Case announced the development of a camera that can photograph more than eight full-size newspaper pages on a strip of film 1½ inches by 12 inches and a month of 50-page papers on a single reel less than four inches in diameter.

The deterioration of newsprint paper in the files has presented a serious probability of newspapers but also economy

lem. By putting their back numbers on film, which is chemically much more stable than newsprint, newspapers are expected to be able to preserve their files indefinitely.

The film can be read in newspaper offices on a simple viewing device that will enlarge the tiny page images from the film up to half again the size of the original newspaper page. Articles from the files may either be read from the viewing device or may be copied full size on photographic paper.

Mr. Case pointed out the usefulness of the new miniature-image process also for public libraries, which store large quantities of newspapers. Not only perma-



of storage space will be important to libraries, he said. If files on film were installed in public libraries, a person coming into read back files of a newspaper would be given a film to examine on the viewing device instead of a large bound volume of papers.

#### **New Supplementary Lectures at N.Y.I.**

Continuing the recently announced program of "Timely Talks" by outstanding specialists in photography Mr. Herbert C. McKay, Dean of the New York Institute of Photography reports that five interesting and instructive lectures in the series were given at the Institute during the last few weeks.

Full information about the courses given by the New York Institute of Photography may be obtained by calling at the studios, or by writing and mentioning **Camera Craft Magazine**. Address: New York Institute of Photography, 10 West 33 Street, New York City.

#### **Willoughby Bargain List**

No one can afford to pass up any real bargains these days so take a tip from us and write to Willoughby's 110 W. 32nd St., New York, N. Y., for their new bargain list. It contains some real ones.

#### **Nograin**

Distinctive feature of the new "NO-GRAIN" fine grain developer is the inclusion of an ingredient which has a hard-

ening effect on the emulsion. This decreases the danger of scratches, abrasions or reticulation even at comparatively high development temperatures. Complete descriptive circulars are available from your dealer or write direct to Schieren Laboratories, Inc., 34 Ferry St., New York, N.Y.

#### **Carl Zeiss, Inc.**

From Carl Zeiss, Inc., we learn that Remie Lohse, the latest miniature camera user to skyrocket to fame and fortune, uses the Zeiss Contax camera equipped with the new Zeiss Sonnar F:1.5 lens exclusively. An exhibition of his photographs is traveling about the country and miniature enthusiasts will do well to keep on the look out for them.

#### **A Tip for Photo Finishers**

Photo Finishers who desire a quality paper at a reasonable price are advised to take advantage of the special introductory offer that the Haloid Company is making on Nomis paper. 2,500 sheets 2 $\frac{3}{4}$ x4 $\frac{1}{2}$ " may be obtained for \$5.00. Write to the Haloid Co., Rochester, N. Y., for further details.

#### **Micrograin "85"**

A fine grain developer that requires no increase over normal exposure is being offered by the Central Camera Co., 230 So. Wabash Ave., Chicago, Ill. Address Dept. ICC11G. Complete and accurate time and temperature tables are included with each bottle.



**Burroughs Wellcome & Co., Inc., Exhibit  
Century of Progress, Chicago**

# Our Book Shelves

**The American Annual of Photography 1934**, edited by Frank R. Fraprie. Published by The American Photographic Publishing Co. of Boston, 296 pages, \$1.50 paper, \$2.25 cloth.

26 interesting and instructive articles on a wide variety of photographic subjects; more than 100 large size reproductions of representative pictorial photography; lists of Who's Who in Pictorial Photography, Amateur Photographic Societies, and Forthcoming Salons and Exhibitions; and a section devoted to formula. All this, and one must certainly agree that it is a lot, appears in this valuable book. The articles are especially well selected and are written by men who speak with authority.

Without any intention of detracting from the very real merits of this book which are abundantly evident from the above summary of its contents, we feel that there is room for improvement in certain directions. It seems that readers of a book of this type have a right to expect that it should contain a fairly complete statement of all photographic activity of an artistic nature. If this be true it is disappointing to find a whole school of photography conspicuously absent. Where is Edward Weston, Anton Bruehl, Ansel Adams, Willard Van Dyke, Imogene Cunningham, to mention only a few most easily called to mind? Regardless of our personal tastes in pictures it seems ridiculous to deny that the group in which these individuals are prominent is doing interesting and important work in photography, and consequently are entitled to a place in the volume under discussion. The writer has no connection with any organization representative of this school of photography, such as the F:64 Group, nor is he unduly sympathetic with their point of view. He does believe that no one can truthfully state that he knows what is going on in photography without

having had an opportunity to see what these individuals are doing. We would almost be willing to sell-out on the above ardent plea for justice, in return for better reproduction.

**Photograms of the Year.** Published by Iliffe & Sons, London. Price \$2.50 paper, \$3.50 cloth.

The present volume contains over eighty large size reproductions that are well selected, individually strong and interesting. Mr. C. J. Symes' comments on the pictures shown are splendid and worth the price of the book in themselves. The editor, Mr. F. J. Mortimer, Hon. F.R.P.S., reviews the years progress and achievements in interesting and illuminating fashion. There is also a report of the status of pictorial photography from a number of countries throughout the world.

In our comments on the American annual we bemoaned the fact that there were no examples of the type of pure photography that is being done by the F:64 Group and others. There is none of their work in this volume but since these pictures are selected from the London Salon and since we are quite sure that none of this work was sent to the Salon, obviously it is the workers themselves who are primarily responsible. It is regrettable that this group of workers have chosen to hold themselves aloof from the main stream of photographic endeavor. Granted that up to the present time it has been quite evident that they would not have a sympathetic hearing in any of the prominent shows. However we believe that that state of affairs is rapidly passing and this view is supported by Mr. Symes' statement that the tendency toward pure photography is becoming more evident each year.

Three examples of the work of this school by Mr. Ansel Adams appear in this issue of **Camera Craft**.

**The Photographic Darkroom, by E. J. Wall, F.C.S., Hon. F.R.P.S. Published by American Photographic Publishing Company, of Boston. 108 pages, price \$1.50 cloth bound.**

This volume describes in detail the complete construction, lighting, ventilation, and equipment of the ideal darkroom. Later chapters discuss Weighing, Measuring, and Dissolving; Handling and Storage of Chemicals; Hot Water Arrangements; Timing Devices; Graduates; Trays, Tanks, and Working Methods; etc.

Without a doubt this is one of the most useful books that have been offered to the amateur photographer for some time.

**"Wellcome" Exposure Calculator Handbook and Diary 1934. Price \$1.00.**

With the many new plates and films which have been placed on the market of late the carefully revised list of plate and film speeds which this handy little volume contains becomes increasingly valuable. There is a mine of information as to the proper use of Tabloid Chemicals and of course the handy little exposure calculator at the back of the book.

**Mexico, by Anton Bruehl. 25 photographs reproduced in Collotype. Published by the Delphic Studios of New York. Price \$12.50.**

Attention please! One of the most beautiful books of its kind is just off the press. The Delphic Studios, under the direction of Alma Reed, is to be congratulated for publishing Anton Bruehl's "Mexico"; it is a contribution to the art of photography and to the art of tasteful printing. Small wonder that the book was selected as one of the fifty fine books of the year by the American Institute of Graphic Arts. It is seldom that any production contains so many perfections of design and good taste.

In the midst of this praise let us not forget Anton Bruehl, who has made the photographs. Probably the best-known commercial photographer in the world today, Bruehl has found time and energy to visit Mexico and make a series of very honest, simple photographs. He says, in the short foreword to the book, that he

did not attempt to photograph the entire Mexican scene; there is only one landscape. He has concentrated on the people—the simple, sun-browned native Mexicans, living as true human beings in their true, semi-primitive environment. There is nothing of the picturesque in these photographs; only a man of discernment and taste could have avoided the theatrical impact that Mexico, as a country foreign to his own, could produce upon him.

The analytical critic will, however, question the effectual relation of the photographs to the reproductions. Those who saw the recent exhibit of the original prints at the Ansel Adams Gallery in San Francisco, and at "683 Brockhurst" in Oakland will recall the extremely vigorous qualities of the prints; the intense "black-and-white" aspect of the entire show. There was a certain hardness—almost a cruelty of tone—in those prints. The reproductions, however, have a softness that is difficult to describe, and perplexing when one remembers the qualities of the prints. As **things to look at**, the colotypes are superior to the prints; as true reproductions of the photographs they are open to question. The translucent paper on which the reproductions are printed augments the **opalescent** quality of the pictures; one looks for the definite "edge" in the images. The careful observer will feel regrets that there are delicate shortcomings in these reproductions from the photographic point of view. He will enjoy the marvelous consistency of the whole as a **book**, he will admire the actual beauty of the pictures as pictures, he will respect the aspect of the reproductions in relation to the book, but he will ask if colotype or any other reproductive medium (with the possible exception of fine half-tones on plate paper) can do justice to the essential qualities of photography.

At any event, while the "purest" may desire certain perfections that colotype cannot give, even he must admit that the book has a certain quality that has been seldom equalled and possibly never surpassed, in a work of this type. All praise to all concerned in the making of this beautiful book. ANSEL ADAMS.

# Classified Advertisements

This is purely a convenience department for the reader and for that purpose offers Classified Advertisements at cost. 4 cents a word: minimum \$1.00 each insertion. Dealer merchandising ads must be placed in display space at 30 cents per agate line. Position Wanted ads, one insertion free. Copy for this department must reach us on or before the 15th and in every case be prepaid.

Items advertised in these columns may be purchased C.O.D. subject to examination and C.O.D. subject to ten days free trial if sent by express. If in doubt, safeguard yourself.

## OUTFITS FOR SALE

◆2¼x3¼ Ensign Special Reflex, 5" Aldis Butcher f:4.5 lens. Double extension, rising, falling front. Filmpack adaptor, focusing panel. Graflex back. Very new condition. \$35.00. Cutfilm magazine, new, \$7.00. Fein, 202 East 31st St., New York, N. Y.

◆A small private quantity of Pinacryptol Green Desensitizer, quality guaranteed. \$1.25 per gram. William Braverman, 283 20th Ave., San Francisco, Calif.

◆National Graflex, heavy leather carrying case. Copying attachment, sun shade, new condition. \$76.00 value for \$48.00. Write: R. J. N., c/o Camera Craft, 703 Market St., San Francisco, Calif. Or phone DOuglas 4242.

◆Contessa Stereoscopic, 4x6 or postcard, Carl Zeiss Tessars, six very fine double holders, pack adapter, sheaths, perfect. Lists \$175.00, sacrifice \$60.00. J. Hall, 705 N. 15th St., Philadelphia, Pa.

## POSITIONS WANTED

◆By ambitious, conscientious young still and motion picture photographer. Capable of managing photographic department of industrial plant. Age 30, over six years experience including motion picture laboratory management and production. Fred R. Jolly, 5426 Shafter Ave., Oakland, Calif. Olympic 2247.

◆By young woman experienced in coloring of movie films, lantern slides, portraits, or any commercial work. Can supply references. Nettie Hamlin, Shreve, Ohio.

## FOR SALE

8x10 Goerz Ango; 5x7 and 4-6 Goerz Ango, Derrullo, Nettel and folding Mentor Reflex; 4x5 Naturalist Graflex, Magnor lens, V. P. Goerz Tenax, Sybill, Blocknote and Papilla. Large Al Vista Panoram, Dagor lens. Gundlach Panoram View. Five Tessar lenses, F:4.5.

R. F. SMITH, Station A, Orlando, Florida

## OUTFITS WANTED

◆Wanted used Leica or Contax also Weston Universal Exposure Meter, several reflectors with stands, using fotofloods and fotoflash, also 8x10 enlarger Everything good condition. L. H. McConney, Terminal Bldg., Omaha, Nebr.

PURE PARAPHENYLENEDIAMINE for fine grain development. No purple color, no black lumps—a pure white powder. One-fourth pound \$1.00. Postpaid, if money accompanies order. The EDWAL LABORATORIES, photographic Dept., 3420 Indiana Ave., Chicago, Ill.

GOOD ALLOWANCE for Firearms, Microscopes, Binoculars, and Celestial Telescopes, on any photographic equipment, motion picture or still, and Bausch & Lomb Spotting Scopes, and Binoculars.

NATIONAL CAMERA EXCHANGE, 5 South Fifth Street, Minneapolis, Minn.

## ADAMS & COMPANY

380 14TH STREET  
OAKLAND, CALIF.

[ Cameras bought, sold and exchanged. ]  
[ Expert and Guaranteed camera repairs. ]

## CINEX 16 MM. FILM

Regular speed — 100 ft. \$3.25; 50 ft. \$1.75. Nonhalation supersensitive Panchromatic for night shots, interiors and exteriors 100 ft. \$4.50. Processing in San Francisco included. Stamp brings Sample. CINEX FILM LAB., 221 Golden Gate Avenue, San Francisco.

## BOOK SERVICE

Would you like to know what books are available on a given subject  
**The Camera Craft Book Service will answer your questions with pleasure**

Catalog on request

CAMERA CRAFT PUBLISHING COMPANY

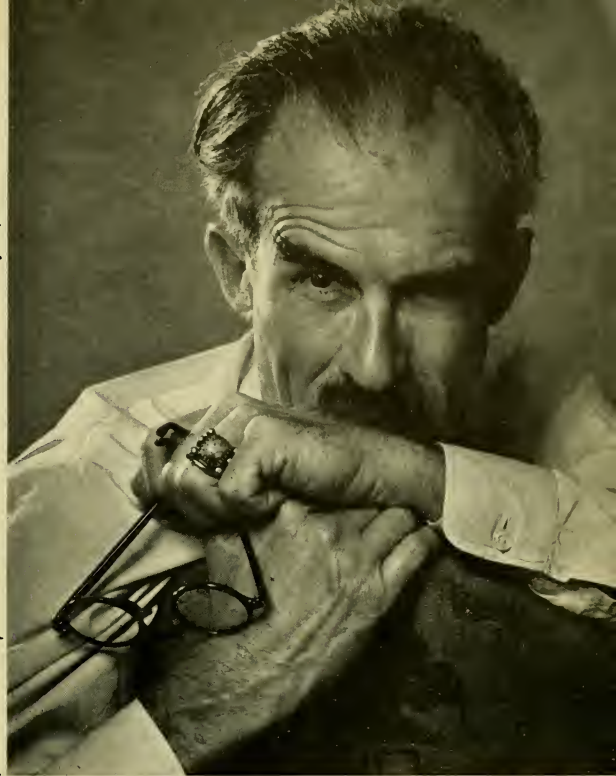
703 MARKET STREET

SAN FRANCISCO, CALIF.

Please mention Camera Craft when corresponding with Advertisers



# C A M E R A



Roi Partridge

17th Los Angeles International Salon

Will Conn

# CRAFT

REG. U. S. PAT. OFFICE

**FEBRUARY 1934**  
**VOL. XLI Number 2**  
**SAN FRANCISCO**  
**• CALIFORNIA •**  
**PRICE 20c**



## In This Issue

**WHAT OF THE AMERICAN SALON? . . William Rittase**  
**HOW IT WAS DONE . . . Frank Y. Sato, A. R. P. S.**  
**LANDSCAPE TECHNIQUE . . . . . Ansel Adams**  
**PHOTOMICROGRAPHY . . . . . H. N. H. . . . F. B. M. C.**





Photo by H. Armstrong Roberts



"REMEMBER, JOE?  
LET'S BUY SIX  
MORE PRINTS"



Amateurs want brilliancy, detail,  
contrast. In Nomis they get all that.  
They're happy. They order more prints.

Uniform. Fewer make-overs. Less  
waste. More profit. Use coupon.

THE HALOID COMPANY, Rochester, N. Y.

New York Office: 225 Fifth Ave. Chicago Office: 68 W. Washington St.

Los Angeles Agent, A. H. Muhl, 1121 S. Los Angeles St.

San Francisco Agent, A. H. Muhl, 222 Kearny St.

The Haloid Co., Bldg. 3,  
Rochester, N. Y.

Please send 2,500 sheets,  
2 $\frac{3}{4}$  x 4 $\frac{1}{2}$ , for this \$5.00.

Name .....

Address .....

HALOID  
NO MISS  
MIS



## Secret that goes out of our Plant only in the Film Package

Users will tell you that the Plenachrome emulsion has certain qualities obtainable in no other film. In fact, their own improved results have sold them so thoroughly on Agfa that a recent survey among Plenachrome users shows that 85.6% of them use only Agfa Film.

Users will also tell you of Plenachrome's remarkable speed, its orthochromatic beauty, its exceptional latitude, or of other things about it which they like. But in and with all the virtues of this fine film there is recognized also an indefinable but characteristic quality resulting from Agfa

methods of film-making. In these methods and in the sensitizing ingredients used lies the secret of Plenachrome's outstanding success—a secret which is exclusively Agfa's, yet which is faithfully at your service whenever you ask for Plenachrome.

Plenachrome is supplied in Rolls and Packs with a speed more than twice as great as that of ordinary film; also in special Fine-grain Rolls (FA8, and FB2) and in an exclusive Agfa Cartridge (for Leica, Contax and similar cameras); also in Cut Film of supersensitive speed.



BRANCHES:  
CHICAGO  
LOS ANGELES  
SAN FRANCISCO  
KANSAS CITY  
NEW YORK  
CINCINNATI  
BOSTON

*Made in U. S. A. by*

**AGFA ANSCO CORPORATION**  
BINGHAMTON, N. Y.



CANADA: AGFA ANSCO LIMITED, TORONTO

Please mention Camera Craft when corresponding with Advertisers

## Bargain Prices On New Cameras

### \$10.00 each

Kodak V. P. with 6.3 kodak lens in Diomatic shutter, built in exposure scale. Lists at \$20.00. Hawkeye 2 1/4 x 3 1/4 roll film camera with 6.3 lens in kodex shutter. List \$15.00.

### \$20.00 each

V. P. Ihagee Ultrix with 4.5 lens in Compur shutter, optical finder. List \$29.75. Set of 2 Halldorsen mazda lights, complete in case, for indoor movies or portraiture. List \$35.00.

### \$30.00

Kawee 2 1/4 x 3 1/4 with Schneider 4.5 lens in Compur shutter, double extension, 3 plate holders and film pack adapter. List \$44.50. Leica Model A with 3.5 Elmar lens, case, range finder and magazine. Used.

### \$50.00

Movie Camera, B & H Model 75, with 3.5 demountable lens, includes carrying case. List \$99.50.

## TRAINER - PARSONS OPTICAL COMPANY

228 Post Street  
San Francisco, Cal.

# COMING

William Mortensen needs no introduction to the readers of this magazine. His splendid article on "Projection Control" which appeared in our November and December issues has established his reputation as a top notch photographic writer. It is with justifiable pride that we announce that Mr. Mortensen has agreed to write a series of five articles in which he will describe the tenets, methods, and aims of the Creative School of photography of which he is the leading exponent. His first article in this series will appear in an early issue and is entitled "An Analysis of the Picture Mind." It takes up the matter of finding and developing artistic material.

Dr. George C. Poundstone is president of the Chicago Camera Club and has been a leading exhibitor for a number of years. He will contribute the second article in our How It Was Done series which begins in this issue.

Thomas A. Wilson, M. S., has devoted much time and study to the subject of composition. He has prepared a series of three illustrated articles which we are confident will clear away much of the mystery surrounding this important aspect of picture making.

Robert Mackay has for many years been connected with a large engraving firm and has also sold a quantity of photographs as a free-lance. Such training makes him eminently fitted to write on "Photographs For Reproduction." We specifically asked Mr. Mackay to write this article because of the large number of requests we received for more of such material from those who read his "The Print for Rotogravure Reproduction" in our September issue.

Bland H. Casbolt has established the fact that there is much helpful information to convey to the miniature camera user. His article in the November issue was highly praised, and the same is equally true of his second paper in our January issue. His next article will describe in detail a method of copying for the miniature camera fan that does not involve the use of the camera.

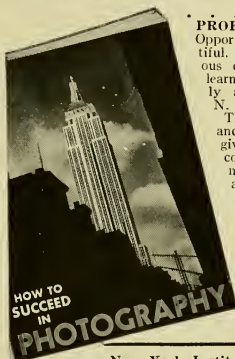
P. H. Oelman is a successful illustrative photographer, an instructor in photography, and a prominent pictorialist. Several of his pictures have won awards in our advanced competition. He is convinced that the practice of still life photography is a most practical method for learning a great deal about both composition and lighting. His article on Still Life Photography will be written from that viewpoint.

Charles D. Raudebaugh is a reporter for the San Francisco Examiner and an enthusiastic miniature camera fan. His article entitled "The Candid Camera" tells an interesting story of the use of small cameras in newspaper work, with special emphasis on their value under adverse light conditions, and in obtaining humorous shots without the knowledge of the subject.

Beauford B. Fisher is a name which we believe Camera Craft readers will soon learn to treasure. He reveals himself as an original experimenter, in other words just the sort of man who has something valuable to say to the student of photography. His pictures have been hung in virtually all of the large Salons throughout the world. He has recently taken up photography as a profession. An example of his work appeared first prize in our Advanced competition for November. We pointed out that this picture was an exceptional example of fine technique in the paper negative process as much as the skin textures had been so well maintained. Mr. Fisher will describe the paper negative process in full detail in an early issue.

## Learn

# PHOTOGRAPHY



AND HAVE A  
PROFITABLE VOCATION  
Opportunities are varied and plentiful. Whether you have had previous experience or not you can learn to become an expert quickly and easily by the famous N. Y. I. method of instruction. The N. Y. I. personal attendance or Home Study courses give you a thorough training in commercial, portrait, news or motion picture photography, and all related subjects.

We invite you to visit our headquarters in New York where you may inspect our modern and completely equipped studios, or mail the coupon below for information on any of our courses.

SEND FOR FREE  
BOOKLET

New York Institute of Photography,  
10 West 33 Street, Dept. 69E, New York City  
Please send booklet giving full information about the N.Y.I. courses in Photography. I am particularly interested in \_\_\_\_\_  
(Commercial, Portrait, News, or Motion

Picture Photography, Photo-Finishing) [...] Home Study Course [...] Personal Attendance Course.

Name \_\_\_\_\_  
Address \_\_\_\_\_



ரூக்மிணி



"Rukmini"

F. R. Dapprich

17th Los Angeles International Salon



# How It Was Done

Frank Y. Sato, A. R. P. S.

*This is the first of a series of articles under the above title in which leading pictorialists will describe in full and complete detail just how one of their pictures was made.—ED.*

THE Editor of CAMERA CRAFT has requested me to describe the methods used in making two of my pictures. It seems extremely difficult if not impossible for the artist to evaluate his work in the way that a critic does in discussing a picture, for the reason that the artist is too close to his own work. At the same time it is very important to cultivate a critical faculty toward one's own efforts, and success is likely to be in direct ratio to the degree in which this disinterested attitude is attained. However, the artist is better qualified than anyone to tell what his aims were in making a particular picture so I will confine my remarks on the artistic side to stating my objectives, devoting the greater part of this article to technical considerations.

My work is not limited to still life pictures such as are shown with this paper. I find much pleasure in dramatic portraiture and a wide variety of outdoor photography, and am a firm believer in the necessity of doing more than one type of work if one is to keep out of a rut.

The two pictures shown may be described as decorative designs. My whole purpose in making such pictures is to create a rhythmic all-over pattern and to that end the most careful attention is given to the spacing and arrangement of the various parts. Subject matter is subordinated to concentrate attention on the composition as such. For instance, in "In Old Japan" the figure is presented in silhouette which greatly reduces its prominence. Were the figure presented in full modeling quite a different type of picture would have been obtained.



Fig. 3



Fig. 4

Ideas for pictures are sometimes suggested by the objects used in the picture. A phrase that would serve as a title may catch the imagination and set the mind to working it out in graphic form, in which case the necessary objects must be found or constructed in miniature as seems best.

I am never in a hurry to get such an idea on the film, but like to mull it over for several days giving the imagination an opportunity to play with the thought. Rough pencil sketches of the arrangement are of great help in visualizing the picture and I usually make several before starting on a set up.

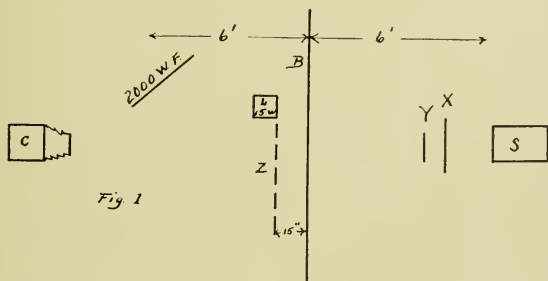
The two pictures accompanying this article illustrate the principal methods which I use in making pictures of this type. The chief variation lies in using the spotlight that projects the shadow forms either in front of or behind the background. Let us discuss "In Old Japan" first.

A white background of translucent material, a tautly stretched sheet will do, is set up (B, Fig. 1) and an arc spot is placed about six feet behind it (S, Fig. 1). The fretwork may be easily cut from cardboard. In this case I happened to have one side of a wooden cage and this was placed in front of the spot at X. The spot was focused to a breadth of beam that would give the curve seen at the left of this shadow form and the fretwork was block along the top and right side so that this curve was interrupted. The figure is cut out of cardboard. It was placed at Y



"In Old Japan"

F. Y. Sato, A.R.P.S.



and moved back and forth until the desired size and position with respect to the other shadow form was obtained. An actual musical instrument was used to cast its shadow but this could also have easily been cut out of cardboard. It also was placed at Y and properly adjusted.

The Japanese lamp is placed in front of the background at L and contains a 15 W bulb. The foliage is also in front of the background (Z) and is grouped in a pleasing arrangement.

The foreground objects I illuminated by a 2000 W floodlight F. Care must be taken to keep as much of the frontal illumination as possible off of the background, and cast shadows from the foreground objects must not be allowed to fall within the picture space unless they are intended to form part of the composition. To attain this end the position of the flood would probably be more to the side and facing at a greater angle than is shown in the diagram.

It is practically impossible to entirely accomplish this end. There will always be some light from the flood reaching the background. For that reason it is necessary to make two separate exposures, for otherwise the front lighting will kill the shadow forms.

For this work I use an 8"x10" Studio camera with a 5"x7" back. An 8½" Dogmar lens, and par speed Eastman Portrait film. I have found no advantage in the use of the highly panchromatic types of film for this work as there is no color problem involved.

The exposures were made as follows: The floodlight and the light in the Japanese lamp were turned off and with only the spotlight burning an exposure of 1 sec. at F:5.5 was given. The spotlight was then turned off, the flood and Japanese lamp turned on and an exposure of 1 sec. at F:5.5 was given to record the foreground objects.

The amount and relation of the two exposures may vary considerably even with the same lighting equipment. For instance it is obvious that if the breadth of the spotlight beam is increased its intensity will diminish requiring longer exposure.

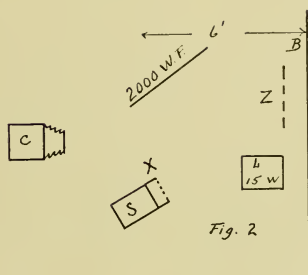
One vexing thing occurs when using the arc spot behind the background. There will always be a small area of greater brightness at the center of the spot. This is usually referred to as a "hot" spot. For that reason, in addition to the fact that I like the method because of the ease of control, I always plan to finish pictures made in this way by the paper negative process. It is comparatively simple to touch out the hot spot partly on the positive and finish the work up on the paper negative. To eliminate the hot spot on the original negative entails a rather difficult job of etching.

My paper negatives are made on Eastman Kodaline which I find very satisfactory for this purpose. Unless a broad effect is desired and there is little need of retaining the halftone values I make the positive by contact on Eastman Commercial Ortho Film. The use of a film positive unquestionably gives a better photographic rendering in the finished result. However, in cases where considerable alterations from the original negative are desired, the use of a paper positive has the advantage of giving us two paper surfaces on which control can be exercised, one a negative and the other a positive. This makes alterations much easier as



"Andon"

F. Y. Sato, A.R.P.S.





all necessary modifications can be made with the pencil or with some such medium as Sunrise Stove Polish or crayon sauce when large areas are to be treated. Etching need never be resorted to for a highlight may be stepped up with pencil on the negative or toned down with pencil on the positive and the reverse is true for shadows. Of course the same is true when a film positive is used but retouching is much easier on a paper base. A film positive was used in the case under discussion.

I have found that the amount of grain in the final print can be reduced by printing the paper positive through the back of the paper. This necessarily introduces a certain amount of diffusion and this in turn can be minimized by backing up the paper which is being printed with a piece of black paper. When black paper is used in this way the contrast will be increased slightly. Fig. 3 shows the paper negative used in making this print and Fig. 4 is the reverse side of the negative showing the retouching that was done. Most of this you will notice is devoted to leveling out unevenness of tone in the shadow background. The only actual modifications are the elimination of the hot spot which falls at the center of the broad middle band of the fretwork, and the accenting of the highlights in the lamp.

We now turn our attention to the second illustration "Andon." The diagram Fig. 2 shows that in this case the spot S is in front of the background instead of behind it as in the other picture. A medium grey toned background was used. The fretwork shadow was projected from a cardboard cut-out placed in the carrier at the front of the spotlight (X). In actual practice the spotlight would have to be nearer the camera than appears in the diagram in order to obtain a circle of light on the background. Z indicates the foliage which appears in the upper left of the picture, L the lamp, F the floodlight, and C the camera. The same camera and film was used as for the other picture but in this case the camera was fitted with a 15" Dallmeyer lens.

With only the spotlight burning a  $\frac{1}{2}$  sec. exposure at F:12.5 was given for the shadow form. The spotlight was then turned off and an identical exposure was given with illumination from the 2000 W floodlight and the 15 W bulb in the Japanese lamp.

The silhouetted twigs in the lower right are not part of the original negative. These twigs were shot against the sky giving a minimum of exposure, so that the twigs are practically clear film and there is only a suggestion of tone in the rest of the film.

The two negatives were simply placed one over the other and moved about until the twigs were in the proper position. They were then bound together and printed as if they were a single negative. With this picture direct projection printing was employed without resort to the paper negative process.

I find that stock negatives of this type are often most useful. They save dragging a lot of foliage into the studio and can also be used to fill an empty space in a landscape picture when the occasion arises. Of course, care must be taken to be sure that the lighting scheme is not contradicted by their use.

# What About The American Salon?

William M. Rittase

**D**O you remember the "kick" you got when you had your first print accepted in a Salon? How you seemed to walk on the clouds, and Life was really worth living at last, after years of spare time spent in the dark room, reading articles, and trying experiments. This feeling is about the only recompense that the amateur gets for his work, and he is entitled to all the pleasure he can get out of it, as long as he does not bore his friends and acquaintances by telling them how good he is.

Then, do you remember when you had your whole bunch of prints turned down at some Salon—how your feelings sank to the very depths and you were tempted to kick photography overboard and start something new in its place? If you really loved photography, when you cooled down to normal you had an inkling that maybe you were not as good as you thought, and that perhaps you had better try to improve your results; that there were quite a few in the world that were taking much better pictures than you were. But, if you had the reaction that you were good and the jury did not appreciate you, or the jury was prejudiced against you, or any such unsportsmanlike reason, then your mental condition was rather a sad affair.

The Salon today is the ambition of most sincere pictorial workers, for it gives them a standard to shoot at, and puts on dress parade the best that photography can offer in that particular Salon. This, in turn, encourages other photographic workers to raise their standards, and creates interest in the public to give photographs a second thought. As this feeling has spread, and I might say very rapidly in the last ten years, most every community of any size now has its photographic exhibitions or Salons. Did you ever look behind the scenes of some of our leading Salons, to find out the great amount of work done by unselfish people to make them a success? Their only pay is the self-satisfaction and pleasure

of knowing that they are doing something to raise the standard of their hobby or profession. I think it is mostly a hobby, for amateurs constitute the majority of contributors to salons, and they deserve to be complimented for it.

The success of any Salon primarily depends upon the committee behind it: I accent this! Generally it is chosen by some photographic organization that is sponsoring the Salon, or a group of leading photographers who are interested in arousing their community to the progress of photography. This committee has all the arrangements to make, such as sending out notices, seeing that entry blanks and letters go to contributors, getting a place to hang the show, picking the jury, mailing notices, seeing that it is properly hung and the prints returned, and last but not least, to raise enough money to finance it. Remember, this is done without any recompense and only for the pleasure they get out of photography.

We look with pleasure to such Salons as Pittsburgh and Los Angeles, who have stood out during the years by the standards they have set, which gave other Salons a mark to aim at, and everything seemed to be handled with a sense of fairness and consideration for everyone concerned, especially the contributors. With regret I might mention another side, in which a committee passed practically all the work on to the Art Museum, who were very innocent of photographic salons, with the result that the jury had to be apologized to, part of the exhibition was hung without the jury even seeing it, and everyone was dissatisfied that knew the particulars. I am referring to the last Philadelphia Salon.

Now let us look at a rather important part of the Salon, and that is the jury. Upon their heads is heaped all the blame by dissatisfied contributors. They, also contribute their services free, except for traveling expenses in some cases. The standard of pictures shown by the Salon in which they are the judges, is absolutely up to their judgment. The picking of judges for Salons is often not a case of getting what is thought to be the best man, but getting a man whose traveling expenses are not too great. The requisites of a juror should be, first, a photographer (for instance, I question going outside of the profession for a judge, as it is an admission you are inferior to other arts) who understands and is able to make good pictures himself; second, a man with a sense of fairness; and third, a man with a mind to make a decision of his own which he quietly speaks when necessary, not trying to belittle or follow blindly the opinions of others on the jury. A well balanced jury should contain one with a modern viewpoint, one of the conservative type, and one in between—that is, if there are three members.

Let us go behind the scenes in the judging of pictures: Many salons put up one picture at a time, while others let the jurors ramble separately down rows of prints. Both of these have good and bad points. When they are put up one by one, say out of 2000 prints received, over 1000 go out immediately with a nod of the head because they are not up to the Salon's standard. This process becomes very tiresome hour after hour, and sometimes the jury gets in the habit of just waving them out on account of the monotony. Perhaps allowing the jury to first glance at all



*"Southern Pines"*

*William M. Rittase*

the pictures in a quick manner, so they have an idea of the quality of prints, would give them a better orientation on what to pick out as the best prints among the contributions, as it gives them a comparative standard.

Now come to the other side—the contributor's side—who gets his rejects back wondering just what was the matter with them. It is possible a plan might be arrived at in which a tally keeper registers each judges' vote according to certain standards fixed on judging prints, and pastes this on the back of the rejected print, to give the contributor an idea of why he was turned down. Portland, Oregon tried this several years ago, and it entailed a great deal of work, but perhaps it could be simplified, and I know it would mean much toward keeping down the number of dissatisfied contributors.

What I feel is the most serious thing, especially since the advent of so many Salons, is that 80% of the pictures sent at present have no chance whatever of getting by any one of the judges on account of the standard of the other 20%. Perhaps a series of regional Salons, limited to the contributors in that region, would help to solve this problem, and only the accepted regional prints could be entered in the National Salons. This would encourage the beginner to contribute to the Salons in his locality with a chance of acceptance, and would eliminate the large expense of sending prints back and forth. Another possible way comes to my mind, and that is for Salons to specialize in certain specific subjects, such as Detroit did last year in an Industrial Salon. There are many other subjects as interesting, like Sports or Action, Romance, Agriculture, and so on down the line. This would allow photographers to contribute the type of pictures they are most interested in.

Another important thing is to keep the prints in that year's Salon limited to the work produced the previous year. Pittsburgh has done this with success. It is tiresome work for the jury to see print after print come up that has been dragged from Salon to Salon, year after year. I feel if copies of the accepted prints of each Salon were bound in volumes, we could turn the pages back and read a history of the people each year that would be more eloquent than the printed page. I wonder if we ever thought of that side of it?

What the country needs is an organization whose work is to encourage the beginner, improve the standards of pictures and Salons, and not be interested in handing out titles to its own members. It needs the cooperation of every organization and contributor in the country, and should consult all, in its formation and execution. This is the day of a New Deal, of closer cooperation in the same profession, and none needs it more than our growing group of Salons. Let us get away from the narrow viewpoint of pleasing our own vanity first, of parading among our associates our titles, our medals, and our acceptances in exhibitions. Let us look at the Salon as the hope of photography, the melting pot in which we orient our own work and admire and see others that are better than our own. It gives us higher standards to strive for. After all, to most contributors this comes under the head of a sport, so let us approach it in a sporting, good-losing, manner.





"Plant Form"

Jean Linstead

17th Annual Los Angeles Salon

# Low Power Photomicrography

George H. Needham, F. R. M. S.

**P**HOTOMICROGRAPHY is one of the most fascinating branches of microscopy, presenting a never-ending variety of objects to be recorded on the photographic plate. Low power work requires the minimum amount of equipment, and as up to a magnification of thirty diameters a microscope is not absolutely essential, it should particularly appeal to the amateur and professional photographer who desire to take up this very interesting work with very little initial expense. In fact, he may have most of the essentials on hand.

## Camera

For the camera an old studio one with a bellows extension of 30" to 36" and a 5"x7" back serves admirably. This should be mounted to slide horizontally on a well-seasoned mahogany or oak board 5 to 6 feet long, 12" wide and 1" to 1 $\frac{1}{4}$ " thick. Means should be provided for moving both the front and the back of the camera and clamping same securely. The geometric slide arrangement is simple to construct and is mechanically sound, bearing at three surfaces. Figure 1 illustrates it. Two brass-cased iron tubes, A, A,  $\frac{3}{4}$ " diameter, and as long as the draw of the camera, are fixed to the baseboard 7" apart. The back of the camera is mounted above a brass plate  $\frac{1}{4}$ " thick with two V-shaped grooves, C, with the faces cut at right angles to one another, in line along one side, and a plane surface on the other side at D. Only one bolt is necessary to securely clamp the sliding plate, and this should be placed at E, with a slot cut in the baseboard for the bolt to slide in loosely. A narrower plate similarly cut can be used for the camera front.

The advantage of placing the camera on a long optical bench is that one can add gradually to the set-up, first with a microscope, and then with a suitable lamp for medium and high power photomicrography. A triangular bar, running the entire length of the board, is the ideal arrangement, but as this and the necessary saddles to carry the equipment are quite expensive, the geometric slide arrangement is recommended instead. This bench can also be used for microscopic projection, enlarging, copying, and making lantern slides by projection. Such a bench arranged for very low power work is shown in Figure 2.

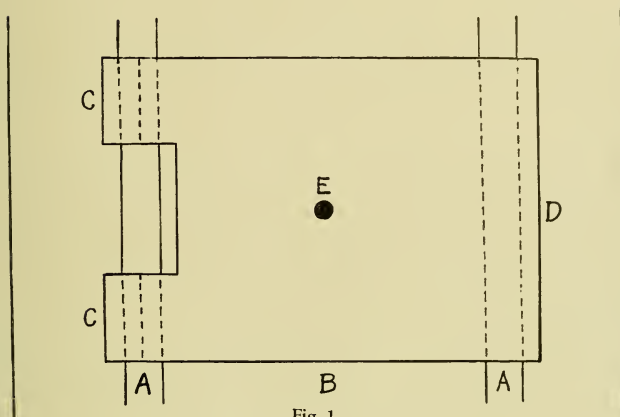
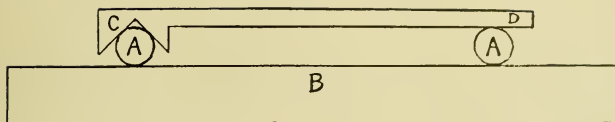


Fig. 1

Geometric Slide for Camera. Scale  $\frac{1}{3}$ .

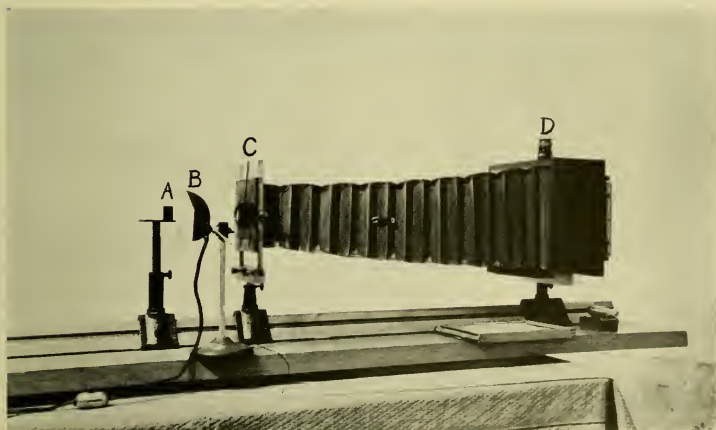


Fig. 2

A—Micro-mineral Mount. B—Bausch & Lomb Wide Field (Shadowless) Lamp.  
C—10.5 cm. Tessar Anastigmat. D—Focussing Glass.  
Camera Draw 36". Magnification on Plate  $\times 7$ .

The reflector of lamp B has a central opening in line with the lens C, which permits the object being photographed at A to be taken in by the lens.

## Lenses

With a camera mounted as above a variety of lenses may be used, one or more of which the reader may have already. For magnifications from  $\times 1$  to  $\times 7$ , a 10.5 cm.,  $f:6/3$  or  $f:4/5$  anastigmat; from  $\times 3$  to  $\times 15$ , a 50 mm. or 75 mm.,  $f:3/5$  or  $f:4/5$  motion picture anastigmat; from  $\times 15$  to  $\times 30$ , a 25 mm.,  $f:3/5$  or  $f:1/9$  anastigmat. If none of these lenses are available and it is desired to purchase a lens for low power work, then the micro-anastigmats specially computed for the purpose by the optical manufacturers are particularly recommended. Focal lengths range from 100 mm., to 16 mm., aperture  $f:4/5$ , with iris diaphragm between the lenses, and all give a large, flat field. The 50 mm. one is the most useful of the series.

It is surprising what good definition all the above-mentioned lenses give, particularly when used fairly wide open. Of course, they have to be stopped down considerably to secure good depth, but never stop down further than  $f/16$ , otherwise the definition will suffer. Diaphragm down just sufficiently to secure the depth desired, as you are photographing fine structure of a small object. Quite different from ordinary photography where stopping the lens way down gives depth and sharpness to the reduced image.

Each lens can be mounted on a lens board to fit in the front of the camera. If the anastigmat is of unsymmetrical construction, *e.g.*, a Tessar, reverse its position so that the front lens faces the ground glass. For focussing any of these lenses accurately, particularly those of short focal length, a rack and pinion focussing device to the front panel is very desirable.

In order to get clear and sharp photomicrographs, even with the lowest powers, it is absolutely necessary to purchase from the microscope manufacturer a  $\times 3$  or  $\times 6$  focussing glass for critically observing the projected image. Use the ground glass for rough focussing and a separate holder of clear glass, with a cross marked in the center with a diamond or tungsten carbide pencil, for the final focussing. Of course, place both in holders so that the ground surface and cross mark are nearest the lens and so that these surfaces coincide with the emulsion side of the plate when used on the camera. Should you wish to combine these two holders, you can make a pencil cross at the center of the ground glass and cement an 18 mm. or 25 mm. circular cover glass over this with Canada balsam. Both the cover glasses and balsam may be purchased from any dealer in microscope supplies. With the aid of the focussing glass the microscopic image is brought in the same plane as the cross on the clear glass.

## Illumination

Good illumination is very necessary for low power work. There are several simple arrangements for securing even illumination, hence it is not necessary to use one lamp illuminating the specimen from one side only, as is often done, giving glare and marked shadows. Bausch & Lomb make a Wide Field (shadowless) lamp with an ellipsoidal, white surface, which has been used by the author with excellent results. It is shown in

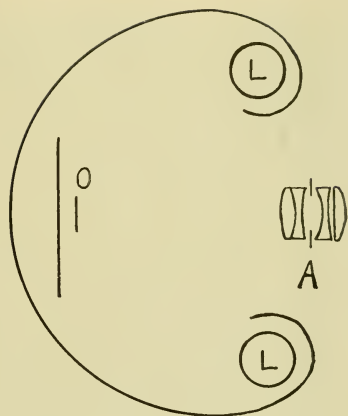


Fig. 3

Reflected illumination from white surface. A. 10.5 cm. Anastigmat. O Object. L Mazda Lamps. Scale  $\frac{1}{4}$ .

the Figure 2 set-up. A similar result, however, may be secured by using a piece of white cardboard bent as in Figure 3, with a 40-watt frosted Mazda lamp set in each fold. This will give even and ample illumination for opaque objects up to  $\times 7$ . The object is fixed with modeling clay to a piece of thick glass or placed on a stand adjustable for height; in either case set an inch away from the white background, or sufficiently far away to avoid casting of shadows. Above this magnification the Preston Top Light Illuminator, (*Journal of Royal Microscopical Society*, Vol. LI, p. 115, June, 1931), consisting of 12 two-volt flashlight lamps set in a 5" circular mount to throw light down on the specimen from all angles, is excellent. Exposures are somewhat long with these methods of illumination, particularly with dark colored specimens, hence recourse is sometimes made to two lamps with condensers, placed on each side of the object.

The above methods of illumination have been used with good success for mineral specimens, small insects, insect eggs, minute microscopic shells such as Foraminifera and Radiolaria, and the larger diatoms growing on seaweed. For objects mounted transparently, such as sections of embryos, whole insects, large stained botanical specimens, etc., a pair of enlarging condensers, a piece of ground glass between the light source and the condensers, and a spectacle lens condenser mounted as close as possible to the object, will give even illumination for a specimen as large as  $1\frac{1}{2}$ " diameter. The light source should be enclosed, and may be a concentrated filament projection Mazda lamp, a projection lantern, if such is at hand, or if one wishes the best light source for general photomicrography—the 6 volt, 18 ampere, ribbon filament lamp.

Spectacle lenses may be secured from the optical companies in several focal lengths. Each anastigmat or micro-anastigmat is used with a spectacle lens of the same focus. Ground glass should only be used when even light cannot be secured without it, as it is apt to slightly decrease





Diatoms (*Arachnoidiscus*) growing on Seaweed from California. x26  
*Leitz 35 mm. Microsummar, diaphragm at 4, 3.5 cm. spectacle lens condenser with black, patch stop at back, 18 ampere ribbon filament lamp, Wratten "C" filter. Camera extension 37". Eastman Commercial plate, exposure 20 sec. Contact print on Velox glossy.*

definition on the plate and also causes great loss of light. It is not necessary above seven diameters if correct methods of illumination are used.

## Filters

Only a few color screens are necessary. The Wratten "M" filters, B- green, H- blue, and C- blue-violet, are the most useful. The K-3 or the newer X-1 are used to secure correct rendering of colored objects on a panchromatic plate. The 2" square size is satisfactory, and if purchased for economy in the film form, the gelatin should be protected by binding up between selected lantern slide covers. These can be used for transparent specimens by placing two or three inches away from the spectacle lens condenser. For opaque specimens, however, where with the indirect methods of illumination described, any color screen used has to be placed between the object and the lens, those cemented between optical glass are a necessity.

The green and blue filters improve resolution, increase contrast in stained specimens, and the Wratten C aids greatly in securing a negative that will give a print with a white background with specimens of



**Insect (Spring-tail) found pressed in Japanese Tissue Paper. x7**

*Zeiss 50 mm. Microplanar at f/9, 5.0 cm. spectacle lens condenser, ribbon filament lamp at 15 amperes, Wratten "H" filter. Camera extension 15". Wratten "M" plate, exposure 1 sec. Contact print on Velox glossy.*

little contrast. Two used together transmit only a narrow band of the spectrum, thus giving approximately monochromatic light, which aids greatly in securing a sharp image on the plate. With stained objects the general rule is to use a filter of the complementary color to the stain, hence for a red stain a green filter is used. Visual inspection, however, is the best guide.

## Plates

The best plates for photomicrographic work are the Wratten Panchromatic "M". They give good contrast and have a fine grain. The  $3\frac{1}{4}'' \times 4\frac{1}{4}''$  or  $4'' \times 5''$  size are excellent for the vast majority of objects, as if it is sharp on the plate and the exposure fairly correct, very little is lost when an  $8'' \times 10''$  projection print is made. If the specimen is very contrasty, a Wratten and Wainwright Panchromatic plate should be used, while if the object is very flat, then use a Wratten Process Panchromatic plate. Plates are much to be preferred to film, but if it is desired to use film, then the Eastman Panchromatic Process and Panchromatic Commercial are satisfactory.

## Exposure

There are many factors affecting the length of exposure, even more than in ordinary photography. The two most reliable guides are the careful observance of the brightness of the image on the ground glass and keeping an accurate record in an Exposure Notebook for future reference. Even with this, the first plate taken of an object is usually a trial one. Correct exposure is so important in photomicrography that even the experts on the subject, if they are working with a great variety of objects at all powers, spoil numerous plates. Hence, always leave your camera set-up undisturbed until you have developed the plate, and then if it is much under or over-exposed it is easy to expose another plate. A plate may be reduced occasionally with Farmer's Reducer, but it is never worth while to intensify.

## Developing the Plate

Use a broad camel's hair brush to remove any foreign particles from the plate before loading in the holder and placing plate in the developer. By doing this and filtering all developing and fixing solutions, no trouble will be experienced with "pin holes" or other similar defects.

Any of the contrast developers recommended by the manufacturer of the plates are satisfactory, particularly the Eastman Metol-Hydroquinone Contrast Developer (Formula D-11), but the author has had such excellent results for the last two years with a two solution developer that it is given below.

### *Solution No. 1*

Water .....	200 cc.	7 ozs.
Metol .....	1.4 grams	22 grains
Potassium metabisulphite .....	16.0 "	247 "
Hydroquinone .....	2.0 "	31 "

### *Solution No. 2*

Water .....	200 cc.	7 ozs.
Sodium carbonate (E.K.Co.) .....	20.0 grams	310 grains
Potassium bromide .....	0.4 "	6 "

Use distilled water, particularly for Solution No. 2. Dissolve each chemical completely before adding the next. These two solutions are kept and used separately. Immerse the plate for two minutes in Solution No. 1 at 65°F. Drain the plate, and without washing transfer to Solution No. 2 at 65°F., allowing to remain 2½ minutes, agitating occasionally. Wash the plate for one minute in a large volume of water and then fix.

In the first solution the developer is absorbed by the gelatin emulsion, but no image appears. In the second, containing the alkali, the silver halide affected by light is reduced and the image appears. These solutions can be used repeatedly. Make up a fresh solution of No. 2 if it gets too dark. The time of 2½ minutes in the second solution at 65°F. has been determined by repeated trials with Wratten "M" plates and will give good contrast. At 70°F. this time should be reduced to 2¼ minutes, and at 75°F. to 1¾ minutes, but the time in Solution No. 1 should remain the same.

In order to get clear negatives it is a good plan to use two acid



(Left) Sucker Foot of Water Beetle (*Dytiscus*). x12

*Leitz 35 mm. Microsummar at 18, Abbe condenser, bottom lens only, 18 ampere ribbon filament lamp, ground glass to even light, Wratten "H" filter. Camera extension 26". Wratten Panchromatic plate, exposure 1 min. Contact print on Azo glossy.*

(Right) Mouth Parts of Bee. x12

*Same as No. 4 except exposure 15 sec. Contact print on Velox glossy.*

fixing baths. Place the plate in the first until clear and then ten minutes more in a fresh bath. Wash the plate in running water for half an hour in a vertical position, wipe very gently with a piece of absorbent cotton while the plate is dripping wet, take up excess water both front and back of the plate with the same piece of cotton, and place on rack to dry.

## Printing

Printing is very little different from ordinary photographic printing except quite a contrasty print is usually made. Eastman Formula D-72 is used for development. The author prefers Velox or Azo for contact prints and Novobrom bromide paper for projection prints, drying same on a chromium plate or ferrotype surface to bring out all the detail possible.

All the photomicrographs illustrated were taken with lenses and methods described in this article.

# An Exposition of My Photographic Technique

## Landscape

Ansel Adams

**B**Y Landscape I refer to that class of subject material which might be better termed *Natural Objects*, excepting Still Life and Natural Objects photographed in the studio or under studio conditions. A further simplification of the term would be—all Natural Objects photographed *in situ*: distant and near views of land and sea, clouds, rocks and growing things (entire or in detail), and views which, although containing works of man, are dominately of landscape character. The subject is large and has no clearly defined restrictions.

The problems involved are accordingly varied and complex. Photographically speaking, landscape is possibly the most difficult subject material to work with; it offers the minimum control of point of view in reference to composition and confronts the photographer with extremes of light and shade and the difficulties of atmospheric obscuration. Again, the emotional values of landscape subjects are very subtle and easily spoiled by romantic or "Pictorial" connotations. "Pictorial" photography has perhaps imitated landscape painting more than any of the other subject matter of painters and etchers. I believe that the shallow presentation of the obvious in landscape subjects has restrained the artistic development of photography to a marked degree.

The principal aesthetic difficulty of Landscape photography lies in the control of "subject-domination". I do not mean that the subject is of no importance; rather, what is done with the subject as an expression of emotional and aesthetic ideas is of vastly greater importance than the mere recording of a scene or of an object. Perhaps the extraordinary ease of producing a shallow *representative* photograph often blinds us to the great artistic potentials of Landscape material. All of the above implies that an immense technical facility is required to command the problems of Landscape photography. I shall attempt to indicate a few of these problems and their technical solutions in this article through an analysis of some of my photographs.





"The Golden Gate"

Ansel Adams

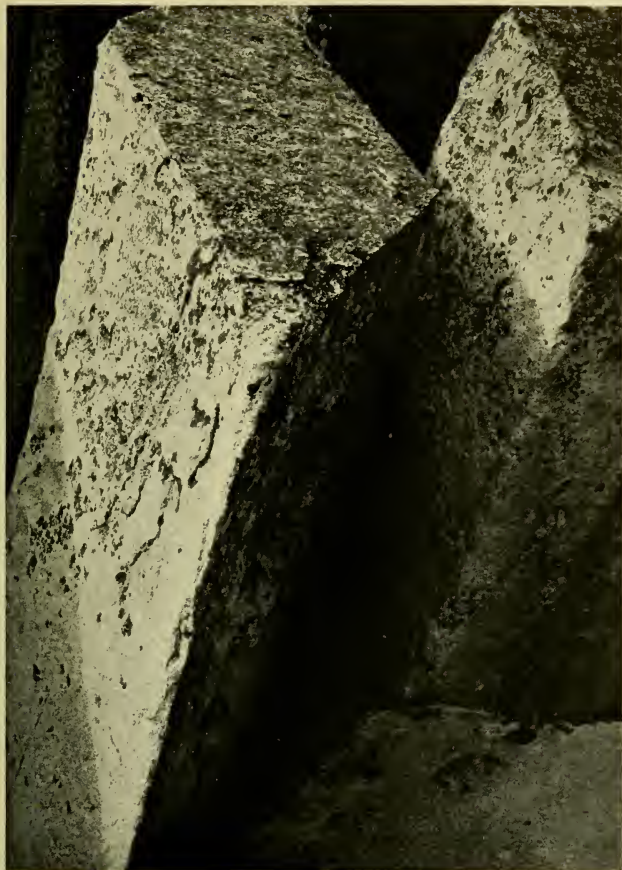
Data: 30% under exposure on 8"x10" E.K. S.S. Pan. with K1 filter; 25% over normal development in A.B.C. Pyro with  $\frac{2}{3}$  normal amount of carbonate.

Let us first consider an average distant landscape (Fig. 1.) Herein a rather complex subject is compacted into an organized composition of clearly defined tonal relations. The subject of this picture may be termed *sentimental* by many, but I have selected this example to illustrate the fact that a subject of obvious sentimental connotations can be managed in an objective and direct way. As I am not discussing composition in these articles I will turn immediately to a definition of the qualities of tone and texture and the technical procedure involved.

In this photograph (with due allowance for what is lost in reproduction) the reader will observe that the tonal values are not literal as the eye sees them; the tonal "key" is rather deep and intense. The tonal relations, however, are entirely logical in reference to the "key". The visual experience of tonal values is "enlarged" emotionally, although in actuality the value scale is contracted. It always must be remembered that the eye is capable of perceiving an enormously greater value-scale than the photographic negative. It is impossible to record on the negative the full tonal scale of eye-vision; but it is possible to produce tonal relations in the print that will *emotionally* represent those of the subject. The emotional "impact" of brilliant clouds can never be conveyed to the spectator by relying on the mere white of the photographic paper to indicate the brightest parts of the cloud-image; there must be some indication of *substance*, of texture, even in the brightest areas of the image.

Theoretically, there must also remain some suggestion of "substance" in the darkest parts of the picture. This implies that exposure and development of the negative and the following production of the print must be carried out with a thorough knowledge of the ultimate effect. It also implies that the tonal values of the completed photograph must be rendered in precise relation to the "key" determined for the proper values of the brightest parts of the image. Obviously, the tonal scale is "foreshortened", and it is in the control of this total foreshortening that the major technical problems lie. As in music, certain harmonies exist in various registers of the scale and these harmonies should persist in whatever "key" is defined for the photograph. To put it another way,—differences of tonal value in the upper registers should always bear relationship to differences in the middle and lower registers. Literally, the photographer should think in "chords" of tone. Tonally this subject presented the problems of rather dark blue water, dark hills (partly in shadow), very intense clouds, and a clear sky above them. The first question was—what filter to use. In order to amplify the brilliance of the clouds a fairly dark sky tone was required. This could have been obtained by the use of a relatively heavy filter—a "G" for instance. But the hills, especially the hills in shadow, would be darkened overmuch, and the water would likewise suffer. But the greatest difficulty would be with the bright clouds—with a "G" filter the intense clouds would "come through" with extreme density in relation to the other parts of the picture; they would be unprintable. The heavy filter would not restrain the sunlit clouds in the same proportion as it would the remainder of the picture. The net result would be a negative of extreme and unbalanced contrast.

The problem was attacked on several fronts: exposure, development and printing. I used a "K1" filter with an 8x10 Eastman Supersensitive Panchromatic Film and *underexposed* about 30%. This gave the desired correction in the sky and water, and did not obliterate detail in the shadowed parts of the hills. Also, the clouds are not "burned up". A heavier filter would result in over-contrast even with normal exposure—with under-exposure the contrast would increase. After exposure with the K1 filter I still had the problem of great density in the white clouds; I had only half-solved the problem at best. Mere under-development would not suffice to control the clouds, for the middle and lower tones would then be very flat and the photograph would lose in richness of tone throughout. I developed for 25% over normal time in Pyro ABC with only  $\frac{2}{3}$  the proportion of "C" (Carbonate of Soda). The result was this—the middle and lower tones were fully developed, but the density of the cloud image was restrained. Texture and substance were preserved in the image of the clouds and all the other parts of the photograph were fully developed. In the printing, the exposure and development were adjusted to render the whitest part of the cloud image as a vibrant, light grey. There is no suggestion of a "blocked white" in the print. Also, there is no part of the darkest sections of the print that does not suggest some detail. The relations of tone in the light parts of this photograph are in key with the relations of tone in the dark parts;



*"Granite"*

*Ansel Adams*

Data:  $4\frac{1}{2}$ " Dagor; 4"x5" E.K. S.S. Pan; normal exposure at F:45; normal development in A.B.C. Pyro; Projection print on E.K. P.M.C. No. 10 medium.

the value sequence does not alter in the various registers of tone.

I do not want to create any false illusions about the difficulty of tonal control; making this photograph was not as simple as it sounds. And no two photographs are alike in the difficulties of control. All of us fail in our objectives quite frequently and I am certainly no exception. I have presented the history of this photograph more as a suggestion of procedure rather than as a definite set of rules to follow. It always must be remembered that the first element of photographic production is the clear vision in the photographer's mind of the final print. The infinite variety of subject-material, and of photographic conceptions, eliminates any possibility of standardization of method. Many men, many minds; many minds, many photographs.

Let us consider another phase of Landscape; a close subject of rock forms—"Granite" (Fig. 2). The composition is quite geometrical and the point of view of the camera was severely restricted by physical conditions. A long tripod and a tilting-top saved the day. A very short-focus lens was used (a 4½" Dagor on a 4x5 Eastman Supersensitive Film). Even with such a short-focus lens the problem of depth of focus was perplexing. In this case, it was impossible to see on the ground glass the fully-focussed image; the lens was stopped down to F.45 when the exposure was made. It required much imagination to visualize the image with the lens fully open, and the process of the gradual correction of focus as the lens was stopped down little by little required the use of a focussing magnifier and a careful checking of all parts of the image. The perspective was adjusted by moving *forward* the focal plane rather than favoring those parts of the image closest to the lens. It is surprising indeed how few workers realize the importance of focussing technique; merely focussing on the nearest part of the image and stopping down until everything is in focus is a careless procedure and often results in the loss of subtle elements of perspective. As a rule, it is better to focus "near" rather than "far", but the design of the picture and the shape of the subject will often dictate different methods of focussing. (This is especially true when short-focus lenses are used.) The exposure and development of this negative was normal (ABC Pyro) and the projection print was made on PMC No. 10 Medium. The light conditions were—late afternoon (5:30), no sun, object shaded by trees.

Perhaps snow subjects offer the most exasperating problems to be found in all Landscape photography. The photographer is confronted with extremes of tonal value, and a minimum of texture (in the snow itself). If rocks, trees or figures are included in a snow landscape the difficulties are augmented. As in the problem of clouds the main difficulty is in the suggestion of *white substance*. The blank white of the paper is very inadequate, and, no matter how intense the blacks of the image are, unless there is some tone in the whitest part of the snow image there is no life whatever in the picture. We again arrive at the problem of "key"; we should work *down* from a very light grey. But there is this difference (unless the snow pictures are made in the shade)—there are very few middle tones. Imparting a tone to the brightest part of the snow image may easily result in the hopeless blackening of the darker





*"Yosemite Valley—Winter"*

*Ansel Adams*

Data: 8"x10" Folmer View; 12" Dagor; 1 sec. at F.64 with K1 filter on E.K. S.S. Pan, in A.B.C. Pyro; Contact print on E.K. Vitava Projection F2.

parts of the picture. That fearful flour-and-coal effect is one of the easiest to obtain in snow-photography, and one of the very worst aspects to be conscientiously avoided. Here are a few major points to remember in snow photography:

1. Work before ten in the morning and after three in the afternoon whenever possible; a low sun reveals more textures and undulations in snow surfaces.
2. Use a fast film; a film with a long "foot" I find Super-Sensitive Film the best on account of its balanced sensitivity to blue.
3. Generally, do not use a heavier filter than a K1.
4. Expose a little under—not too much under—and never over-expose.



5. Develop in about  $\frac{3}{4}$  Carbonate of Soda content in the A.B.C. Pyro developer; the time of development should be increased 10 to 25% above normal.
6. Do not try to get over-brilliant prints. The snow photograph suggests more the "temperature" than the brilliance. Snow is cold. Avoid any tone in the print except white. Snow is white—with just a trace of blue in it. But the blue is not a blue color. Any blue-toned or sepia-toned print of a snow subject is about the worst possible example of bad taste. It is not necessary to get very dark skies in snow scenes; in fact, there should be some relation in the tone of the sky and the trace of sky-tone in the snow.
7. Exceptions: When photographing snow in shade or on overcast days give full exposure and normal development. The tone of snow in shade is a rich firm grey—not a "fog" grey. Dark objects in a shady snow scene are less difficult to manage than under conditions of sunlight, but there remains, nevertheless, the danger of "heaviness" of tone.

As most of my work is contact printing or moderate enlargements, I have given very little attention to fine-grain developers. I rely entirely on Pyro. However, I do not want to convey the slightest thought of discouragement about small cameras and fine grain developers. If the use of small cameras is imperative the fine grain developers must be considered as essential to satisfactory results. In a later article which will include some paragraphs on news and documentary photography, I will stress the advantages of the small camera and grainless developers.

Apart from the many minute details of operation that the photographer discovers for himself and develops along the lines of his individual work, I would say that there were very few tangible rules on which to found a solid photographic expression. In these articles I discover myself quickly halted against a very large barrier—the impossibility of compacting in a few paragraphs an idea of photography or even a description of the machinery employed in expressing that idea. The theory of negative development is one thing—the actual development of a given negative is decidedly another. I believe it all comes back to this rather simple statement: define the essential logic of the medium of photography—its prime qualities and its limitations; discard completely any associative conceptions of other art mediums; simplify technique to the greatest possible degree and work with system and precision. Photography is a serious thing—all art is serious—and photography has suffered more than any other expression from the mere careless amusement of the worker who considers the camera a delightful toy to play with in idle hours.

---

*In his next article Mr. Adams will discuss the technique of portraiture.—Ed.*

# Editorial

**I**N his article in this issue Mr. William Rittase makes the suggestion that the number of regional salons should be increased for the purpose of encouraging new workers in pictorial photography and to educate and interest the public in photography as an artistic medium.

There is much to be said in favor of this point of view. Due to the fact that the number of pictorial photographers is far greater today than in the past it is becoming increasingly difficult to obtain a hanging in the better known salons. This is as it should be, but obviously such a state of affairs tends to discourage an aspiring pictorialist. Unless he is made of decidedly stern stuff a few rejections are likely to convince our aspirant that he simply is not cut out to be an exhibitor, with the result that he is liable to drop out of photography altogether, an action that is certainly to be regretted. This is not to be taken as an argument for low grade shows. Poor photography has no place on an exhibition wall. We believe that a regional salon should maintain a high standard. The advantage of such shows lies in the fact that the geographical limitation will greatly reduce the number of entrants. All will agree that much good work is excluded from salons by the mere force of numbers and it is these pictures, which have been rejected because of lack of wall space, that should find a place in the regional salon.

The value of good exhibitions in educating the public to an appreciation of photography as an art can hardly be exaggerated. We who are close to photography are prone to overlook the fact that there are vast numbers of people who have absolutely no conception of the full scope of the medium. Every good show is a convincing advertisement of the fact that photography deserves a place among the arts and consequently from that standpoint alone an increase in the number of salons is desirable.

The one question which arises is this. Will enough really good work be forthcoming to enable a regional salon to maintain a reasonably high standard? The answer is yes provided the best workers in each region will support the exhibition by submitting prints, and provided the committee does not try to hang too many pictures.

We must face the fact that outstanding pictorialists are constantly besieged with requests to send their pictures to shows, and consequently are not likely to support a local show unless there is some definite reason for doing so. Mr. Rittase's suggestion that a national salon be held in which only prints that had been hung in a regional salon would be eligible would go far toward meeting this difficulty. Obviously such a set up could only be arranged by a strong national organization. Fortunately, the newly formed Photographic Society of America seems well suited to the task and if the above argument is valid the advantages to be derived would seem worthy of their efforts. The editor would like to receive readers opinions on this subject for publication in our Correspondence Department.

## An Apology and a Promise

**I**T is with great humility and considerable embarrassment that we call attention to a bad error which occurred on page 13 of our January issue. The last item in the formula on that page should be Glycin, not Glycerine. With this issue we have inaugurated a completely revised system of proof reading, involving a double check on all copy, and feel that we can safely promise that no further errors of this nature will appear.



"Snowscape"

John Muller

Advanced Medal Print

■ "Snowscape" by John Muller has very fine photographic quality. Snow texture and water quality are both exquisitely rendered. The picture is strongly tied together by the leading line of the brook which carries the eye through the picture space in orderly fashion. It is interesting to ponder the focusing problem which this picture presents. Mr. Muller has chosen a stop which throws the background out of focus, probably with the intention of assisting the impression of the third dimension and concentrating interest. It seems unfortunate to us that diffusion begins just at the first turn of the brook, for in a very subtle way this has some effect of dividing the picture in half. With such a strong leading line we believe that sharp focus could have been used throughout without loss of depth, and that this would add to the photographic quality of the picture. Such is the ideal. In practice however we would have to select the smallest stop which would permit a short enough exposure to record the water without too much movement.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$ " Voightlander Avus; 1 sec. at F 16, on Defender X F Pan. Special, with K 2 filter; Developed in M.Q. tank; Defender Velour Black J in M.Q.



"Coquette"

Advanced Medal Print

Charles T. Norton

■ Charles T. Norton's "Coquette" is one of the most charming child portraits we have had for some time. We are sure that all will agree that "Coquette" is "doing her stuff" and that she deserves to be classed as an expert. The modeling of the face leaves something to be desired but considering the method of lighting it is remarkably good. The hands and hair are well handled and the pose is graceful and natural.

Those amateurs who have shied away from portraiture because they believed elaborate equipment was necessary are referred to the data on this picture, which was made by the light of a single photo flash bulb.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$ " Graflex; Zeiss Tessar lc F:4.5; Exposure by all the light of one small photo flash lamp directly above lens, at F:16; K  $1\frac{1}{2}$  filter on E.K. Portrait Pan. in D-76; E.K. Vitava Opal D, in D-72; Nelson Gold toned.

■ Admittedly our practice of rating the pictures which receive awards in this competition in one, two, three order often presents certain difficulties in judging, which the ordinary salon jury is not called upon to solve. This is due to the fact that pictures of distinctly different type offer little or no basis for direct comparison. We find an example of this in our present group of Advanced awards. On what direct basis is one to compare the relative merits of "Aloft" by Evelyn Curtis with any of the three portraits shown? Direct comparison is futile but there is a basis for valid judgment. In such cases the jury must rate the prints in order by deciding in what degree each picture has been successful within its



particular sphere. In other words, did the artist make the most of his material—did he fully accomplish his purpose? It is necessary that readers should be aware of this problem if they are to have a sympathetic understanding of the decisions of the jury.

■ "Aloft" by Evelyn Curtis. A picture of this type offers very real difficulties in the matter of composition and these difficulties are intensified by the fact that the picture must stand or fall almost entirely on the basis of its success as a design, as subject matter plays a minor part. The most common fault which one finds in such pictures is that the maker has not been able to arrange the strong lines of the masts and rigging, so that the eye is not carried out of the picture. Mrs. Curtis has been quite successful in this respect. All lines lead to the platform high in the picture which is strong enough to hold the attention. If you wish to demonstrate to yourself how the eye will shoot out of the picture in a poor arrangement simply turn the picture upside down and notice that the mast then carries the eye right out of the print. This does not occur when the picture is right side up because of the eye's tendency to travel upward. Some may feel that the eye could travel out along the diagonal spar in the lower part of the print. Such is not the case however due to the fact that the spar is interrupted by the mast and there is the further check of the rigging which cuts across the spar at the edge of the print. The spar plays an important part in the composition by adding necessary weight to the lower portion of the picture.

Data: Butcher Reflex; Aldis F:4.5 lens; Defender H.G.S. film in M.Q.; Defender Velour Black in M.Q.

■ Jack Hazelhurst has adopted a rather unusual and fairly difficult camera angle in "Harriet". Very few model's features could withstand the foreshortening which this pose entails. It is well to notice the importance of the unsymmetrical neck line of the dress. It breaks up what would otherwise be an overly large black mass, introduces a sharp angular line that accents the pleasing curves that make up the major part of the picture, and in this way does much to lift the picture out of the ordinary. The foreshortening of the head, of course, reduces its apparent size. On the other hand in following out the triangular composition the artist has slightly enlarged the apparent size of the upper part of the body, by broadening the base of the triangle. We do not mean to imply that the picture is out of drawing but believe that the proportion between head and shoulders could be somewhat improved by slight trimming of the print from either side.

Data: Anastigmat lens; 1/10 sec. at F:5.6; 4000 W artificial light, on Defender X. F. Pan. in D-76; E.K. Vitava Projection A-3.

■ In several respects Dr. Max Thorek's "Hungarian Nobleman" is the best picture in the group. It has stronger dramatic values than the other prints, is more finished from the technical standpoint, and seems to bring out the personality of the sitter to best advantage. Excellent pictorial use has been made of the fine flowing hair. Considering that the model is looking toward the right of the picture, the judges were unable to understand the artists reason for placing the head to the right in the picture space. They felt that there should be more space on the right and possibly a little less on the left.

Data: 8x10 Studio Camera; 1 sec. at F:8 by Halldorson studio light on 5x7 Agfa Plenachrome, in Glycin; Contact positive on commercial film; Enlarged paper negative and final print on Agfa stock.

■ It is difficult to grasp the artists intention in "The Yogore" by F. Y. Sato, and since we do not know what "Yogore" signifies the title does not help. It seems reasonable to suppose that this is intended as a genre study, a story telling picture. Since the story is not clearly told the picture does not quite come off.

Data: 8x10" Studio; 15" Dallmeyer; ½ sec. at F:6 on E.K. Portrait film, with 5000 W mazda; Metol-Pyro; E.K. Opal W print from paper negative on E.K. Kodaline.

### Scoring For Club Trophy Cups

In spite of the fact that the pictures had to be mailed at the very height of the holiday season twelve clubs submitted prints this month of which six were successful in winning points. Under the circumstances this leads us to expect a substantial increase in the number of competing clubs by next month. No single club has so far scored enough points to give it any great advantage over clubs which have not yet competed. Don't wait until you put your club at a disadvantage. We were pleased to note that one miniature club submitted prints on this occasion and we don't mind telling you that they came within a hair's breadth of winning an award. We have seen a good deal of miniature work that





12



13

ADVANCED FEBRUARY



14



15

Second: "Aloft", Evelyn Curtis

Third: "Harriet", Jack Hazelhurst

Fourth: "Hungarian Nobleman", Dr. Max Thorek, F.R.P.S.

Fifth: "The Yogue", F. Y. Sato, A.R.P.S.

## ADVANCED COMPETITION

February 1934

### Contributors

Edward Alenius  
George Alsand  
F. G. Ashton  
Norton Louis Avery  
Axel Bahnsen  
Eric Barnes  
Albert Budd  
Henry Collard  
Evelyn Curtis  
M. H. Curtis

George Danforth  
Joseph Engles  
Beauford B. Fisher  
Christine B. Fletcher  
Jack Hazelhurst  
Lionel Heymann  
Erica Instourth  
H. F. Kells  
Karl J. Khandalavala

Rustom N. Kharas, A.R.P.S.  
Paul W. Macfarlane  
Paul L. Miller  
John Muller  
George Michael Rex  
F. Y. Sato, A.R.P.S.  
Mano Taussig  
Dr. Max Thorek, F.R.P.S.  
Leo Tiede  
D. E. Wulff

FEBRUARY, 1934

would surely win if it was sent in. Miniature clubs are welcome and should not feel that they are at a disadvantage.

Individuals making points for their clubs are as follows: Evelyn Curtis and Don Kirby Oliver, for the California Camera Club; Jack Hazelhurst and Dr. Max Thorek, for the Fort Dearborn Camera Club; F. Y. Sato, for the Japanese Camera Club; Roland Calder, for the Photographic Society of San Francisco; John Muller, for the Pictorial Photographers of America; and Charles T. Norton, for the Schenectady Photographic Society.

### Contributing Clubs

California Camera Club  
Camera Club of Ottawa  
Crockett Photographic Society  
Fort Dearborn Camera Club  
Fresno Camera Club  
Golden Gate Leica Club

Japanese Camera Club  
Photographic Society of San Francisco  
Pictorial Photographers of America  
San Jose Camera Club  
Schenectady Photographic Society  
Telephone Camera Club of Manhattan

### Standing of Clubs

#### Large Clubs Advanced Class

Fort Dearborn Camera Club 5  
Pictorial Photographers of America 5  
California Camera Club 4  
Camera Club of Ottawa 4

#### Small Clubs Advanced Class

Japanese Camera Club 6

#### Large Clubs Amateur Class

Photographic Society of San Francisco 9  
Schenectady Photographic Society 8  
California Camera Club 3

#### Small Clubs Amateur Class

No Score

■ W. Dovel Le Sage's "Quietude" is a pleasing, if rather conventional, landscape with a nice play of light and shade. The brook forms a very strong leading line but there are two items in the picture which compete with it. There is some tendency for the eye to travel to the left of the large trees because there is a suggestion of a pathway there and because of the highlight at the end of the path. The print would be stronger trimmed from the left into the first large tree. Of less importance as a distraction is the line of the road on the far side of the brook. This gains a bit too much strength because of its high key and because it is straight and direct when the other main lines of the picture are curved. We believe it would help to tone this down.

Data: Eastman No. 3 Special Kodak;  $5\frac{1}{4}$ " Kodak Anastigmat F:4.5; 1 sec. at F:16 with Rhaco Yellow filter factor 2; Agfa Plenachrome Roll Film in M.Q.; E.K. Vitava Opal D in M.Q. Print slightly softened in projection and subsequently treated with a waxing solution.

■ Don Kirby Oliver has caught something of the patience and idealism of womanhood in "Naaome". The line of light running down from the chin gives a touch of variety that is helpful. There is some lack of modeling and a bad shadow about the nose. The lighting gives a sagging appearance to the right side of the chin, that should be corrected by retouching or a shift of the light. Also we believe the whole head should be more to the left in the picture space.

Data: Studio Camera with Verito lens; 1 sec. by single spot light and reflectors on Defender Portrait in Glycin; paper negative on Defender Velour Black Veltex, in Amidol; print Agfa Porcelain Stipple in Amidol; Red Chalk toner.

■ "A Place in The Sun" by Van F. Dunlop is an interesting little study of some village plutocrats enjoying their favorite outdoor sport. The two figures in the foreground are well posed but the effect is marred by the fact that the figure in the doorway is obviously looking at the camera.

Data:  $3\frac{1}{4}\times4\frac{1}{4}$  Series B Graflex;  $6\frac{3}{8}$ " Kodak Anastigmat; 1/25 sec. at F:6.3 on Agfa S.S. Pan. in D-76, no filter; Kodak Bromoil paper in Amidol; Bromoil print.

■ Roland Calder has found an interesting group of trees to which the title "Windblown" is well fitted. The bushes on the right nicely balance the massed foliage of the trees. The small area of sand to the right of the bushes, coming at the edge of the print and on the horizon line to boot is a bad eye-catcher and tends to give the print an appearance of falling off at that side. This can easily be corrected by trimming into the right hand edge of the bushes.

Data:  $3\frac{1}{4}\times4\frac{1}{4}$  Auto Graflex;  $8\frac{1}{4}$ " Zeiss Tessar F:4.5; 1/50th sec. at F:8 with K 2 filter; Portrait Pan. in Ardurol; Defender Velour Black Veltex, in M.Q.; Printed with pebble screen in contact with negative in enlarger.



12



14

## AMATEUR FEBRUARY



5

3



Second: "Quietude", W. Dovel Le Sage

Third: "Naaome", Don Kirby Oliver

Fourth: "A Place in the Sun", Van F. Dunlop

Fifth: "Windblown", Roland Calder

## AMATEUR COMPETITION

February 1934

### Contributors

A. V. Astone  
Dr. H. C. Atwood  
F. M. Beckett  
Esther M. Bell  
Ralph E. Bird  
Cecil H. Biver  
B. Brixner

R. N. Bushman  
Frederick W. Butterlin  
Roland Calder  
J. Cantrell  
Leon Cantrell  
R. L. Caples  
Bland H. Casebolt

Raymond B. Collard  
Clifton Cowee  
R. B. Crain  
Elmer M. Cunningham  
Arthur David  
Van F. Dunlop  
E. C. Dymond

(Continued on Page 94)

# Cinema Section

Edited by

William A. Palmer

## Developing Apparatus

It is often convenient to do processing of cine film at home. Some enjoy experimenting with the negative-positive system of film finishing; others wish to develop "direct" titles which have been exposed on positive film and are to be processed as a negative. It is a popular misconception that home finishing entails expensive apparatus. This is not the case and we wish to substantiate the statement by suggesting the method of constructing a simple developing outfit which has proven entirely successful for the ordinary demands of the cine enthusiast. This outfit is only one of many types, but it is believed that, for 16mm film, it has the advantage over most of the others from the standpoints of inexpensiveness, compactness, economy of solutions, and ease of manipulation.

The apparatus is fundamentally a miniature edition of the "rack and tank" system of developing that had been used by professionals for years before the elaborate processing machines came along. It differs, however, from this professional equipment in that the solutions are held in horizontal flat trays instead of vertical deep tanks.

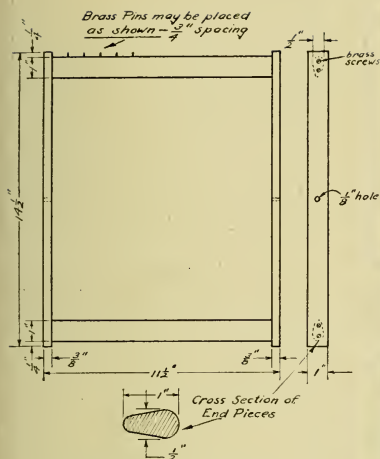
The unexposed film is wound on a rectangular rack or frame which acts as a support for the film length so that it may be handled in a unit through the various solutions, without possibility of damage to the delicate emulsion surface. This rack has outside dimensions so that it may fit easily in 11-inch by 14-inch enameled trays. Since the trays are made

for 11x14-inch prints, they are considerably larger than these dimensions and the rack is made  $11\frac{1}{2} \times 14\frac{1}{2}$  inches over all. It is fabricated of four pieces of wood, two side pieces and two end pieces, as shown in the illustrations. The end pieces are rounded so as not to form a sharp kink in the film. The side pieces are allowed to project a quarter inch beyond the end pieces, thus protecting the emulsion of the film from being damaged by scraping the end of the trays. They are also wide enough so that the film is held off the bottom of the tray as long as the film is wound tightly. The rack is held together by brass screws and given a coating of chemical-proof paint or paraffin.

At the mid-point of each side piece of the rack is drilled a small hole by which it may be pivoted on nails passed through the holes. These nails are supported by a stand which is built to hold the rack free as it is turned to wind the film upon it. The nails may be slipped readily in and out of the holes in the rack when the winding operation is complete.

A rack of the size mentioned above will hold approximately fifty feet of film, quite enough for average home use. Additional footage can be handled with more racks, but many home laboratory workers will find one to be adequate.

Three trays are required ordinarily for developing and it is found that enameled ware is most satisfactory. However, other trays, manufactured or homemade, can be used with success. The general dimen-



sions also can be changed at will, the 11x14 size being convenient since many amateurs have the proper developing trays at hand.

In the use of this outfit, the film is wound, emulsion side out, on the racks, with the adjacent turns closely and evenly spaced. It is found that without very careful handling, there is a little tendency for the film turns to shift and overlap each other, but small brass brads or escutcheon pins may be driven into the end bars to separate the turns. The ends of the film are fastened to the racks by rubber bands which are looped over the end pieces and affixed to the film with a common pin. The tension of these rubber bands keeps the film tightly wound as it expands in the solutions. This is quite

necessary, for film will expand a great deal when wet and, if allowed to become loose, will be apt to become damaged.

In addition to the racks and trays, it is desirable to add a drying rack or drum to the apparatus. It is possible to dry the film, after its final washing, on the rack upon which it was developed, but this is not advisable. The film, as it shrinks, will pull too tightly over the sharp bends of the rack and acquire permanent kinks. Instead, another rack in the form of a rectangular rack or drum in skeleton should be made, onto which the wet film can be wound loosely until dry. This drying drum can be very simple, no more than a larger version of the developing rack with very well rounded end pieces.

## The Qualities of Good Cinema

It is at this time of year, when activity with the camera is diminished out of respect for the elements, that the cine enthusiast turns to day dreams of future

pictures of the coming spring and summer. The drab record pictures for the family film album, while valuable, do become uninteresting except as records.



There is a desire to film something more than a collection of snap shots. Every movie maker at some time or other wants to make a motion picture that will be a real credit to his effort and ability, a piece of work that will cause his friends to volunteer sincere praises instead of the too familiar congratulations of politeness which have such a weak color.

As we see professional movies, we readily recognize some as being better than others. But it is not often that we try to analyze them to see why good pictures are good—whether their superiority is due to inexpressible genius of the producer or to expenditures of vast sums of money, or whether there are certain qualities that all good pictures have in common.

A careful analysis of good cinema reveals that there is a remarkable parallelism between that newer art and the art of writing. It is found that qualities long recognized as necessary for good writing are also found in good cinema. Let us review these qualities and see how they may be applied to home movies.

### **Interest**

Good cinema must be interesting. No matter how good the continuity and technical work may be, a picture that bores is not good.

It is obvious that a picture has two main sources of interest, the subject matter and the way in which the subject is presented. Motion itself is interesting to a certain extent and in this the motion picture has an advantage over arts such as painting or still photography. Also many subjects automatically gain interest just because of themselves. It is an axiom in professional newsreel circles that pretty girls and babies are always good subjects. They are interesting even though a film of them is poorly photographed.

The manner in which a subject is presented in a film has a great deal to do with the interest which it may create. A familiar and oft used subject with new and novel treatment can be made most fascinating.

### **Originality**

Originality in choice and handling of

subject matter is decidedly a quality of good cinema. It is to this end that Hollywood spends millions of dollars to get new talent, fresh ideas, different directors. The amateur movie maker should make the film from his own standpoint—as it seems to him that it should be done and not as he thinks an Ernst Lubitsch or a Von Sternburg would do it. A study of the technique of these great directors is valuable, but the filmer should work out his own ideas.

### **Clearness**

That a motion picture should be clear and intelligible in all points seems to be so obvious as to need no mention. Yet, one of the most common faults of amateur continuity is the difficulty one has in following the action. This is particularly true in amateur photoplays when the story is often so clouded as to be impossible to follow. Clearness is no less important in an industrial or scenic film.

### **Unity of Structure**

A motion picture should have a definite and logical structure commensurate with the subject. It should have smooth continuity and should be rounded into a form which is unified, not too long nor too short. Many films attempt too much in the footage available and thus lose unity. It must be remembered that a feature length motion picture can only cover the equivalent of a short story or at most a short novel without too many side plots. The attempt to condense long and involved literary works to motion picture dimensions has resulted in almost uniform failure at the box office. Stories of literature that have been successful in screen versions have been those characterized by simplicity.

### **Sincerity and Restraint**

Sincerity and restraint are perhaps the most valuable qualities that can contribute to the success of an amateur picture. Elaborateness or "fussiness" in the composition of a movie scene or extravagant use of action must be strictly avoided. It is the simplicity and restraint in motion picture technique that carries force—it leaves something to the imagination

of the viewer and therefore seems more natural and real.

George Arliss is one of the best actors on the screen today and at the same time one of the most restrained. In his autobiography,\* Mr. Arliss describes the need for controlled action and restraining gestures when working before a moving picture camera. He relates the amusing incident of his first screen test and the horrible effect that his over-acting produced. The amateur photoplay maker will do well to study the performances of Mr. Arliss. Probably no one can portray a more forceful characterization than this great actor with his reserved

facial expression and simple gestures. His sincerity is so true that he cannot be said to play the character—he is the character.

It is a remarkable thing that these qualities can be easily incorporated in amateur films. None calls for the lavish sets or prodigious budgets of Hollywood. All will yield to the tools of the average amateur with the proper manipulation. These qualities are yardsticks with which the worth of our films can be measured.

\*Arliss, George; *Up the Years from Bloomsbury*; Boston; Little, Brown & Co., 1927.

## Correspondence

### Competition Comment

Dear Mr. Young:

I like "Eighty-four—With a Smile," by Edward Alenius, for the sake of the way in which he has succeeded in accentuating the interesting character of his subject. The balance seems a bit off, it being too weighty on the left. The light falling on the top of the hat was originally as strong as that which falls on the face and had he overcome this objectionable quality by screening the light during the recording of the negative instead of shading during printing the result would have been more logical and at the same time artistic. This point was brought to my attention by a portrait painter with whom I studied some years ago. He claimed that an objectionable highlight should always be controlled by placing some object in the path of the light. We are more likely to make errors by ignoring this method and then trying to control values after.

"Lake Villages," by Ruston N. Kharas, A.R.P.S., seems to have a very beautiful photographic quality. It is, however, a bit busy and I find it difficult to find a point at which my eyes may rest at ease. The horizon line, also, seems dangerously near the center of the picture space.

"The Skipper's Son," by George E. Jar-

vis, is exceptionally fine. Contrary to **Camera Craft**, I believe that the placing of the figure in the picture space accentuates the childish stature of the subject as does the fact that the eyes are looking up. The beautiful and subtle change of line around the silhouette of the figure is particularly interesting.

I always look forward to seeing Mr. Sato's compositions. With "In Old Japan" he presents himself at his best. One may feel, as he looks at Mr. Sato's work, that he is one who is not fettered by formulae for composition but has an in-born intuitive power of knowing what is good.

Mr. W. C. Day presents some interesting subject matter in his print, "The Shadows Lengthen". As it stands the composition is faulty in several places. Its artistic quality would be improved were two thirds of an inch trimmed off the top, two-thirds of an inch off the left side, about half an inch off the right side and one-third off the bottom. The figures should be placed further into the picture at a point below and slightly to the left of the jog in the roof of the building. All the lines of the composition seem to lead to this point.

Yours very truly, ..

H. F. KELLS.

Dear Sir:

On Page 13 of the January 1934 issue you call attention to the error made on Page 461 of the November 1933 issue, regarding the exposure of the film to be developed in the Sease No. 3 formulae.

This I had already learned by using the formula through the good old school of experience.

Not content with that "boner" you pull another beauty in the formula given on the same subject Page 13 and type "Glycin" as "Glycerine". Can you beat it?

Cordially yours,

EUSTACE C. SOARES.

P.S.—Serving as an editor on a technical paper for five years gives me the right to have my little fun and "ball" you out. Now what is it Glycin or Glycerine?

**Guilty—Glycin is correct, see page 79 of this issue.—Ed.**

Dear Mr. Young:

I desire to write to you to compliment you on the kick you are putting into your articles since taking over the Editorial end. I thought it was a good time to do this now, before my article appeared, so that I would not give the impression I was praising myself. Doolittle's article this month was fine, and I know you have received so many compliments about the Mortensen series that it is almost unnecessary to add mine. . . .

To come to something that may be of interest to you, which is the fight I am making against the newly formed Photographic Society of America on the issuing of degrees. This has really gotten warm since my article was sent to you, and a couple of weeks ago the Photographic Society of Philadelphia, which you know is the oldest in the country, and has perhaps more or as many pictorial workers as any club, withdrew from the Associated Camera Clubs and would have nothing to do with this new Society on account of the issuing of degrees. I will admit I was responsible for influencing them in this action, for I feel the time has come for someone to say something against the deluge of titles added to photographers' names. I feel it is undemocratic and strictly introducing snobbery into photography of

a foreign, imported brand. God knows there is enough work than can be done by such a society to help photography to raise its standards, etc., but why start off by issuing degrees from a society which has yet to prove its worth, and what does a degree mean from such an organization? . . .

Sincerely,

WILLIAM M. RITTASE.

**Further opinions on both sides of this question will be welcomed.—Ed.**

Dear Sir:

I am quite pleased to have your letter of January 4th and no apology is necessary concerning the fact that the origin of the para-min/glycin combination was not credited to me. I always remember the truth of the old saying that there is nothing new under the sun, but so far as I know, I was the first one to make any experiments with this combination, whose results were published. The combination was first tried something over a year ago, and the experiments were the basis of a paper which appeared in the May, 1933, issue of "The Camera".

Mr. Sease carried these experiments farther, trying out various proportions of the two active agents and later addressed an eastern miniature camera club on the subject of fine grain development, which address formed the basis for an article which appeared in "The Camera" (June, 1933 as I recall) in which he published data on three different para-min glycin combinations, one of which is the one now called "Sease number 3". In looking back over the matter I see that my first article was based on insufficient experimental work, as it contains a number of inaccuracies and is limited only to one combination, namely, 50/50 para-min/glycin.

With an active recollection of the tediousness of my experiments, which were sketchy as compared to Mr. Casebolt's work, I think that we amateurs who are interested in fine grain development owe him a great deal for the enormous amount of work he has put in to make the para-min/glycin formulae available to the average worker, in that he has

brought it down to a concrete basis for practically all of the popular emulsions, and has also considered it from the standpoint of the most important consideration, which is the final print. I would say by far he has done the major part of the work and the attached copy of this letter is for him, as I would like him to know how much I appreciate the magnitude and value of his labors.

I am now working on another fine grain developer in which the aim is to avoid the derating of the film speed, which derating is essential with the paramin/glycin combination. To the present I seriously question the possibility of getting results which are fully equal to the aforesaid combination, but I am quite encouraged, in that my results so far indicate that the grain is nearly as good, so much so that I do not think there is any difference for the degree of enlargement that is ordinarily used. Up to about 15 diameters I can detect no differences.

While we are on the topic of fine grain, there is one amateur practice that I must protest and I would like to have Mr. Casebolt check into this matter. The thing that I do not approve of is the idea which is quite firmly rooted of wiping the emulsion side of the film with chamois, cotton or viscose sponge, and then hang the film in a warm place to dry. "In a warm dry place" is usually taken as meaning one where artificial heat has not only raised the temperature, but has greatly reduced the relative humidity.

When the difference between the wash water temperature and the dry air temperature is not very great, and the humidity of the latter is fairly high, the film is almost certain to exhibit what I term "incipient reticulation", that is, the emulsion surface is reticulated, but it is so fine that it is not noticeable even on enlargement, but the way it degrades the film is truly wonderful. More drastic conditions will produce visible reticulation, which is very easily identified. In my opinion, the emulsion face of the film should not be wiped dry, nor should the drying be performed in a room whose temperature is radically above that of the

wash water, or which has been "dehydrated".

After I finish my experiments with the new developer, I expect to prepare an article on it, provided the results are justifiable, and I am going to ask Mr. Casebolt if he will be kind enough to try out from the standpoint of emulsion speed rating and grain, a sample of this developer which I will send to him later.

Sincerely,

ARTHUR PURDON.

Dear Mr. Young:

In the January issue of **Camera Craft** (page 48) I read the statement that there is a group of photographers doing interesting work in photography, but that this group chooses to remain "aloof from the main stream of photographic endeavor".

As a member of the group mentioned I should like to reply for myself; fully realizing that this personal point of view may in no way reflect the opinion of other photographers.

In almost any kind of expression there are various schools of thought which have little in common with each other—even though they may be working in the same medium. These schools however, are segregated and labeled. So should it be with photography. If pure photography is ever to find its way onto the salon walls it also must be segregated and labeled. Weston has nothing in common with Mortensen, in technic, in subject matter, or in point of view. I am sure that Mr. Mortensen would be the first to agree that this is so. It would be silly to hang the works of these two men on the same walls, for to do so would be a tacit statement that they were both to be considered examples of photography of the same type. There should be some distinction made.

I'll venture the statement that if salons were to announce a section for pure photography, separate and apart from the other work shown, that many of the group you mention would be glad to send.

I offer the above as a suggestion and a challenge to the salons.

Yours for more stimulating photographic shows.

WILLARD VAN DYKE.

# The Amateur and His Troubles

## Stains—Their Cause and Removal

The two principal causes of yellow or brown colored stains on negatives and prints are as follows:

1. The use of an old partly oxidized developer or a developer that is deficient in sodium sulphite.
2. Exposure of the negative or print to air in the early stages of fixation, permitting oxidization of traces of developer on the surface of print or negative.

To remove stains of this nature proceed as follows: Immerse the negative or print for five minutes in a 5% solution of chrome alum. Rinse briefly and bleach in equal parts of the two solutions given below:

A. Potassium Permanganate .....45 grs.  
Water to .....20 ozs.

B. Hydrochloric Acid ..... 1 oz.  
Water to .....20 ozs.

When bleaching is completed rinse in water and immerse in a 10% solution of sodium bisulphite until the brown stain is removed. Redevelop in any clean working developer such as Metol-Hydroquinone or Amidol, wash, but do not fix, and dry.

Never weigh out amidol in the darkroom or in a room where prints are dried. This is a light finely divided chemical and small particles are certain to get into the air. If these settle on prints during drying a brown stain results. If brown stains appear on the back of prints which have been laid face downward to dry this is almost certainly caused by minute particles of amidol. There is no known remedy for such stains. A thorough cleaning of the darkroom is indicated.

## A Stunt in Compounding Developers

As every amateur should know, or has learned from experience, cleanliness and accuracy in the compounding of developers is an essential in the realization of the desired results.

Since first taking up the mixing of my own developers some years ago, I have followed a practice which seems worthy of passing on to fellow-workers, especially those interested in miniature photography. This stunt is not only conducive to accuracy and cleanliness but makes a most efficient reference work as well.

Briefly the stunt is this:—Whenever a developer has been recommended, or is desired to be tried out, one sheet of standard typewriter paper is taken for each dry ingredient going into the makeup of the solution. In addition a "title sheet" is made up upon the head of which is typed or printed the Name or Reference Number of the developer. This is followed with the formula as given. Beneath this comes the conversion if necessary, to the proportion of each ingredient necessary to fit the tank used, or in the case of paper developers, the tray or stock-bottles to be filled, together with such instruction regarding time and temperature, etc., as may be desired. This information fills the upper half of the sheet. The lower half is devoted to results obtained, lasting qualities, etc., as experience dictates.

Each following sheet bears in its upper left hand corner the Name or Reference Number of the developer together with the number of the sheet prominently indicated and the quantity of chemical called for to make the customary amount.

To illustrate, let us take the example the fine grain formula as given in **Camera Craft** (November 1933, page 460). The "title sheet" bears at its head "Sease No. 3 F. G. Dev." followed by the formula as given. Then follows my reduction to the quantities required for use in my Leica "Reelo" tank, namely.

Water (approx. 150° F) .....14 oz.

1. Sodium Sulfite (dess) .....137 gr. 1 oz.
2. P.-diamine .....64 gr.
3. Glycin .....43 gr.

this being followed with condensed in-



structions regarding times and temperatures for various films, etc., as mentioned previously, together with my findings to the effect that it gives splendid results with the various films I use, that it is capable of doing splendid work on as high a number as 8 films in one week, and other notations.

Following the title sheet comes sheet No. 1, clearly marked, and headed "Sease No. 3, No. 1 of 3.

Sodium Sulfit 1 oz—137 gr.  
then sheet No. 2 with its quantity of P.-diamine and lastly sheet No. 3 with its quantity of Glycin.

When preparing developers, while the water is heating, the sheets are laid out in the proper order and the quantities given are weighed out and emptied on the proper sheets where they are easily checked, and from which they may be emptied and dissolved in the water in turn in the same manner in which one empties prepared developers.

This method has been found to be exceedingly rapid, cleanly and accurate, and if the customary 8½"x11" typewriter sheets are either clipped together and filed in an ordinary transfer case or file, or obtained punched to fit standard loose-leaf binders and indexed therein an unusually efficient and useful reference work will result.

A number of the developing agents such as Paraphenylenediamine have a staining action. In such cases it is advisable to use a separate sheet each time

for that chemical so that the record sheet may be kept clean.

RAYMOND B. COLLERD.

**Desensitizing Developer for Color Plates**

Immerse plate in total darkness in the following developer for approximately one minute; turn on yellow light and complete development.

Sodium Hydrosulfite .....10. g.  
Potassium Bromide ..... 3.5 g.  
Sodium Bisulfite .....16.5 g.

Dissolve in cold water (65-70 F) to make 250cc. Developer should be mixed fresh as it does not keep in solution for more than 2-3 hours. Chemicals may be mixed dry, however, and, if properly stoppered against moisture, will keep for many months. It is readily soluble in cold water.

Initial appearance of image is slower than M.Q. but density builds up rapidly giving an average developing time of 3½-4 minutes @ 68F for normal exposure.

However, with bright yellow light, development can be easily followed and stopped when desired end-point is reached.

There is a noticeable absence of frilling with Autochromes and Filmcolor.

According to the British Journal this developer was first suggested by Lumiere Freres for use with Autochromes and marketed in France under the name of Hydros.

Its lack of popularity may be due to the odor of the gases evolved which are sulfurous and a little distasteful. It is worth a tryout, though.

SIDNEY H. MARCH.

# Photographic Digest

**Dr. H. D'Arcy Power, F. R. P. S.**

London Salon of Photography. International Exhibition, 24th Year

You enter the Salon with a cheerful sense of expectation, due partly to the large hall and the excellent lighting, but more to its origin and history. The embodiment of the Linked-Ring that a quar-

ter of a century ago banded themselves together for a higher conception of photographic art it has been true to its principles and goal. Perhaps too tolerant at times to artistic aberrations it has known

where and when to draw the line; with the door open to all things that have even a promise of good it has known when to close it when the promise has faded out. An example of this may be seen in the admission of a number of pictures by Mr. Frank Davis under the caption "Linear Design," these are not colonades from Egypt or Greece or New York's skyscrapers but humans, mostly nude or partly so, amongst drapings or other surroundings whose lines are painfully visible as running vertically and as though drawn with a ruler. In one example the only curved line in the photograph is that of a well formed breast, a pleasant relief. Working against nature by formulae of this kind can attract by oddity but never win out. In a general way it may be said that this year's show is devoid of flagrant aberrations, the ladies of a year or two ago sitting in soap bubbles, on bubbles, contorted ornamentations to hoops have mostly disappeared, the only startling thing of this kind that I noticed was a nude in spectacles, the nude was all right but the spectacles surely indecent. The nudes as a class are very good and with more reason for their existence than is often the case and some call for special notice, such as D. Ronays Negro girl (No. 165) fine in form and natural pose. The strikingly beautiful contribution of Dr. Arthur de Carvalho; George P. Lewis's "Sun-kissed," a torso

with skin and body so beautiful that one longs to see the head. As a counterfoil to the last we may mention Rabinovitch's torso (131) as a study in skinnyness. The classical group of bathing women is rarely risked in photography but Bertram Park has splendidly succeeded. Two other good studies are unfortunate in their accompaniments and surroundings. The "repose" of Angus Basil seen from a little distance has the appearance of a subject laid out for autopsy, and Mrs. Rosalind Maingots "Silk Scarf" (124) has a resemblance to a lady who having removed her clothes and washed them is hanging them on the line. It is a pity that such a fine posterior has not a better setting. As I commenced this review by speaking of excessive gesture so I would end it by noting its great value in some case; there are two contiguous nudes "Erna" (68) by Dr. Alfred Grabner and "Maxine" (62) by Jack Barsby, the first is the full faced figure of a beautiful girl just entering womanhood throwing her arms upward in innocence and joy of her nudity, like a little two-year old escaped from its clothes. It is Eve before she met the serpent. Compare this with Maxine, also a beautiful figure and you will see pose and expression of another order. Of the many very fine portraits and landscapes I can only refer to Herbert's very fine portrait of Edward Algar.

### Amateur Contributors

(Continued from Page 85)

Fred C. Ellis  
Wilson D. Ellis  
Fred M. Fling  
W. R. Frederick  
Mortimer Friedman  
Martin Fritzpatrik  
Nat Gaer  
W. Gibson  
Harold Gretzner  
Dr. B. Hamilton  
Viola Hawke  
Johanna E. Heim  
Lon Hellums  
Wm. Hoeflerlin  
H. G. Hogue  
Roy R. Huckell

D. E. Jack  
Stanley Jordan  
W. Dovel Le Sage  
Geo. Lesnever  
Miss Mary MacLennan  
M. Marjossian  
W. J. McCune  
J. W. McManigal  
Lauren B. Morgan  
M. Moskowitz  
B. Murphy  
F. A. Northrup  
Charles T. Norton  
Don Kirby Oliver  
F. Owen Pearce  
Mary Wright Pridham

Frank X. Reilly  
F. L. Rogers  
C. A. Scheinert  
Al. Scheinhaus  
S. Sockolov  
Elmo B. Stevens  
C. St. Loebner  
Irvan E. Taylor  
J. Oliver Tucker  
Carroll Waddell  
Henry L. Washburn  
Marion E. Weller  
Charles Willey  
Wm. E. Wing  
Herbert B. Woodling  
G. A. Youle

# Selling Points - Points to Sell

**John P. Lyons**

Here are the 1934 requirements of some of the better known magazine.

National Geographic Magazine, 16th & M Sts., Washington D.C. Clear, sharp, glossy, single-weight, unmounted black and white prints, 5"x7" or somewhat larger, either contacts or enlargements, preferred. Special need for natural-color photographs on glass, 5"x7" (as small as 3½"x4¼" sometimes acceptable.) Geographical subjects. Study magazine for suggestions. Stress human interests. Show man in relation to his environment. Select interesting photos of out-of-the-way places, if possible. Number prints and send list of descriptions, including significance and location in each case. Photos desired whether or not accompanied by manuscript. Before submitting manuscript inquire of editor regarding subject. Rate depends upon merit.

Business Week, 330 W. 42nd St., New York pays \$5 for 5x7 interesting business news pictures, personality sketches of important men in important situations, or prominent business men in the news.

Fortune, 135 E. 42nd St., New York will be glad to look at sets of photographs on speculation. This profusely illustrated, magazine is printed in roto-gravure, and prints most suitable for reproduction semi-matte, not too contrasty, nor too dark. If you can make it—the highest rates are yours for the asking.

American Weekly, 235 E. 45th St., New York, the Sunday Feature Magazine Supplement of Hearst Nation-Wide Newspapers. Illustrated feature articles, always with photographic matter. The more unusual striking and attention compelling the pictures, the more likely they are to buy. Nothing is more generally interesting than a good photo of a really pretty, well-dressed woman. A story where a beautiful woman is the central figure, or in some way associated, is

likely to make the best feature. Preferred lengths run, for a full page feature, about 200 words with six to eight photos. For these they pay \$35, to \$75 and often more for remarkable or extraordinary material, or where the photos are exceptional. Smaller articles, 300 to 500 words with one photo bring \$5 to \$30 according to merit. Centre double page features run 4000 to 5000 words with a variety of unusual photos, bringing \$100 to \$300. Pictures must be clear, sharp, striking and unusual.

Nature Magazine, 1214-16th St., N. W., Washington D.C. Illustrated popular natural history articles, normally 2000 word limit, wild life, animals, birds, flowers, plants, trees, astronomy, water, fish, and in general, natural history. Prints at least 3x4. Rarely buy single photos. Best to query first before submitting. Pay 1c to 2c per word, \$1 to \$3 per photo.

Vogue, 420 Lexington St., New York. Deals with fashion, women interests, etiquette, society, beauty, fads and fancies. Average length of article is from 1500 to 2000 words. Subjects can range from fashion to personalities, from travel to local activities—in fact, "Anything that has a current interest in the lives of sophisticated people." Not too studiously or heavily written. Payments ranges from \$30 to \$150, with \$75 as an average. Single photos of society celebrities, smart resorts and occasionally interested in "photos of extraordinary beauty, either of unusual places or views, or aspects of modern life that are unhackneyed. Like to see humorous photographs which relate in some specific way to present modes and manners. Size or finish of print does not matter."

Woman's World, 222 W. 39th St., New York. Pay \$35 to \$50 for illustrated articles, about 1000 words, on home architecture, decoration, home rejuvenation or

refurnishing. Prefer large, black and white glossy prints.

Woman's Home Companion, 250 Park Ave., New York. No single photos. Illustrated articles, up to 3000 words, practical ideas for the home, informative articles on art, literature, music, travel, self-improvement, in fact, anything that would interest the modern woman.

McCall's Magazine, 230 Park Ave., New York. Most of the household material

is prepared by the regular staff. Articles of general news interest to women, up to 3000 words in length are considered. Mr. R. S. Staples, Art Editor advises "We often buy single photos, usually of people, glossy prints, size does not matter, for which we pay from five to fifty dollars, depending up its worth and merit." It is best to study this magazine before attempting contributions.

## Notes and Comments

### Local Exhibitions

**At the De Young Museum**, Golden Gate Park: Feb. 4th to March 4th. The 17th Annual Los Angeles Salon of Pictorial Photography, held under the auspices of The Camera Pictorialists of Los Angeles.

**At the California Camera Club**, 45 Polk St., San Francisco: During January; one man show of pictorial photography by William Mortensen.

**At the Adams-Danysh Galleries**, 166 Geary St., San Francisco: During February; an exhibit of the St. Francis Idea, by Beniamino Bufano. The Bufano exhibit is designed to show the sculptor's working approach to the giant black granite statue now in Paris, which has been the subject of much art controversy and has recently been accepted by the Art Commission of San Francisco. Also an exhibition of Photo-Documents, by Walker Evans.

Joseph A. Danysh, for the past year art critic of the San Francisco Argonaut, is now associated with Ansel Adams in the operation of the Adams-Danysh Galleries, previously known as the Ansel Adams Galleries.

**At "683 Brockhurst"**, Oakland, California: Jan. 15th to Jan. 31st; 25 photographs by Thurman Rotan, of New York. Dur-

ing February photographs by Ira W. Martin, and during March photographs by Berenice Abbott. The gallery is open from 3 to 5 p.m. daily including Sunday, and is operated by Miss Mary Jeannette Edwards and Mr. Willard Van Dyke, two charming young persons that will make you feel more than welcome. The gallery itself has a quaint charm all its own. We promise that your first visit will not be your last.

### Eliminate the Curl in Prints

Numerous amateurs have informed us that they have been having great success in taking the curl out of prints by the use of Lyflat a preparation manufactured by the Defender Photo Supply Co. of Rochester, N. Y. A bottle that is good for 1000 8"x10" prints costs but \$1.00 Get a bottle from your dealer and try it out.

### New Summar F.2 Lens for Leica

The long-promised Summar f:2 50mm lens in collapsible mount for Leica Cameras is now ready for delivery. This lens embodies several characteristics, among which might be mentioned its superb color correction and absolute crisp-sharpness, even at its widest aperture. A perfectly flat and brilliant field is produced. The outstanding feature of the Summar lens is its sharpness at every diaphragm

stop. It is therefore, an ideal all-purpose lens, besides being an excellent speed lens.

The new Summar in collapsible mount differs somewhat from the standard Elmar and Hektor 50mm lenses for the Leica. First, the depth of focus collar is seen from above the camera, making it easily read without turning the camera around. Second, the lens itself, does not rotate as the lens is focused. A spiral focusing mount causes the lens proper to glide forward and backward without turning. Third, the diaphragm control ring is situated near the front of the lens with the figures facing upward so that they may be read from above as the camera is held in the hands. Fourth, the Summar collapses to within three-quarters of an inch from the front of the camera, making it possible to carry the camera in the pocket or carrying case without the inconvenience of a rigidly projecting lens.

The Summar f:2, 50mm lens may be obtained in both rigid and collapsible mounting. For further details, write to Spindler & Sauppe, 86 Third St., San Francisco, or 811 W. 7th St., Los Angeles, Calif.

#### **Death of A. H. Beardsley**

The large number of friends who learned to love and admire A. H. Beardsley through the medium of Photo Era, during his long editorship of that magazine, will deeply regret his passing. He passed away on Nov. 26th after a few weeks illness from lung trouble at the Wolfeboro Hospital. He leaves a wife and a baby daughter, only one month old at the time of his death.

#### **Haloid Pays Wage Dividend**

There are surely a number of indications that the coming year holds the promise of better business conditions. In this connection we are happy to report the fact that the Haloid Co. was able to pay a wage dividend to all employees last Dec. 15th. One paragraph of their announcement of this dividend is particularly interesting at this time. We quote it below:

"A word as to N.R.A.—Recent adjustments of hours and wages under provi-

sions of N.R.A. are just and easily borne. The slight burden which they impose can and undoubtedly will be promptly removed with the passing of those unfavorable business disturbances, which make them necessary. We view the future as promising. We regard at least moderate improvement in 1934 as reasonably assured."

#### **Adapting Unit—Kodak Enlargers**

The Eastman Kodak Company is currently introducing an adapting unit that will accommodate a Photoflood lamp in models of the Kodak Auto-Focus Enlarger not already so equipped.

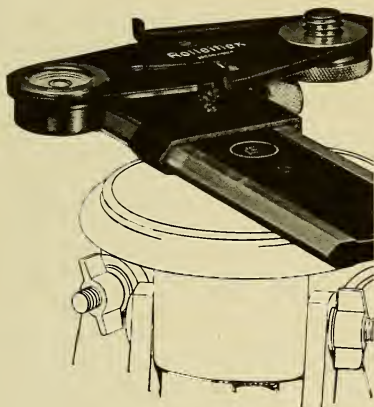
The Kodak Auto-Focus Enlarger, Model B, has a Photoflood lamp as standard equipment, but previous models have an ordinary 200-watt incandescent lamp as the source of illumination. The Photoflood lamp, used with ordinary current, has an illumination power greater than a 500-watt lamp of the usual type.

The adapter device, by accommodating a Photoflood lamp, will put owners of the older models of the Kodak Auto-Focus Enlarger in a position to have stronger illumination and thus to select from a larger assortment of enlarging papers. Only the fastest papers could be used in these enlargers, employing a 200-watt lamp, but with the Photoflood lamp slower papers, providing a greater variety of tones, can be used.

Since a Photoflood lamp gives off a greater proportion of blue light than does an ordinary incandescent lamp, the effective light available with a Photoflood lamp is even greater than the difference in wattage would indicate. On that basis, tests have shown that the Kodak Auto-Focus Enlarger is six or seven times faster with a Photoflood lamp as illumination than with a 200-watt bulb.

The fitting of the adapter to the older types of Kodak Auto-Focus Enlarger is described as very simple. Once the adapter has been fitted and a Photoflood lamp has been installed, directions for operating the converted enlarger are the same as for the new Kodak Auto-Focus Enlarger, Model B. See the new adapting unit at your dealers or write to Eastman Kodak Co., Rochester, N.Y., for further information.





### Stereo-Fitment

With this device, easily attached to the tripod, you can make excellent stereoscopic or three-dimensional pictures with your Rolleiflex. Several other helpful accessories are also available such as the Cine-Film attachment, and the Iris-Stop for the finder lens, which we will review in a later issue. For complete details write Burleigh Brooks, 127 W. 42nd St., New York, N.

### Bargains

As many have learned to their sorrow there are bargains and bargains. When the low price is reflected in poor quality

the bargain becomes something else again. Long experience in careful merchandising and an undisputed integrity are the qualities one would desire in those offering bargains. Both qualities are characteristic of Abe Cohen's Exchange, 120 Fulton St., New York, N.Y. Write for their latest bargain list and notice the fine values they are offering in their advertisement in this issue.

### Sensitometric Screens

In the November 1933 issue of this magazine we ran an article describing the great value of the sensitometric screen in determining the proper degree of contrast in the printing paper for any given negative. We have received a number of letters from readers stating that they have been unable to obtain such a screen. The Photo Lab. Co., 2522 Warren, Cheyenne, Wyo., is prepared to furnish a screen such as was described in the article for a very reasonable price. Those who wish to obtain a screen are advised to communicate with them.

### New List of Emulsion Speeds

Willoughby's, 110 W. 32nd St., New York, N.Y., have just published a new and up to date list of film speeds based on Scheiner ratings. They have also prepared an after inventory list of bargains. Both may be obtained by writing to the above address.

## Our Book Shelves

**British Journal Photographic Almanac, 1934.** Published by Henry Greenwood & Co., Ltd., of London. 684 pages, price \$1.00 paper, \$1.50 cloth.

Our old friend the "B. J." makes his appearance each year with infallible reg-

ularity. As in past editions the volume contains seven main articles, including the editors estimate of advances made during the year; the Epitome of Progress, giving the details of new processes and methods; sections devoted to New Goods,

Formulae, Tables, and Miscellaneous Information; and sixty pictorial prints reproduced in photogravure. The above does not begin to convey the vast amount of information contained in this book. Suffice to say that it is there and we have yet to meet a purchaser who regretted the act.

#### **Developing, Printing, and Enlarging**

**Leica Pictures**, by Willard D. Morgan, and Karl A. Barleben, Jr., F. R. P. S. Published by E. Leitz, Inc., of New York. 46 pages, price \$.25 paper covers.

This is a helpful little manual giving all details of laboratory practice for the Leica user. One is tempted to question the accuracy of the statement that twice normal exposure is required for a simple para-phenylene-diamine sulphite developing formula. Recent investigations would seem to indicate that three to four times normal exposure is required and that to get down to twice normal exposure requires a supplementary developing agent such as glycin. A formula of this type is given in the book. For further information see the Nov. 1933 and Jan. 1934 issues of this magazine.

**Penrose's Annual**. Published by Percy Lund Humphries & Co., Ltd., of London. Cloth bound \$4.00.

This volume constitutes an annual review of the graphic arts with especial emphasis on the printing, engraving, and photographic industries. A large number of specimen pages both in black and white and in color illustrate the best work in almost every conceivable process, or combination of processes. It is with deep regret that we note the passing of William Gamble, F. Inst. P., F.R.P.S. who has edited this volume since 1895. His place is taken by R. B. Fishenden, M.Sc. (Tech.), F.R.P.S. The present volume speaks well for Mr. Fishenden's ability to carry on the high standard set by his predecessor.

**Das Deutsche Lichtbild**. Published by Bruno Schultz, of Berlin. \$5.00 cloth bound.

The present volume contains 112 full page reproductions of the best German

photography, and several technical articles in German. Almost all of the pictures are the result of straight photography, so apparently the various control processes are decidedly out of vogue in Germany. A number of the most striking photographs are obviously unposed shots and illustrate the great advantage of the small camera in obtaining human interest pictures with the maximum of verisimilitude. The crowning glory of this book is the excellent quality of the reproductions. It heads the list of photographic annuals in this respect. Technical data is given on all prints shown in a list at the rear of the book.

**Deutscher Kamera Almanach 1934**. Published by Union Deutsche Verlagsgesellschaft, of Berlin. 174 pages, price \$3.50 board covers.

**Photofreund-Jahrbuch, 1934**. Published by Photokino-Verlag, of Berlin. 240 pages, price \$3.50 cloth covers.

The two books listed above are similar in general characteristics and consist of a number of very fine technical articles, profusely illustrated. Available only in German.

**Abridged Scientific Publications from the Kodak Research Laboratories. Volume XV**. Published by the Eastman Kodak Co., Rochester, N.Y.

This volume contains in abridged form the scientific papers compiled by the Eastman Research Laboratories in 1931 and 1932. It is not offered for general sale but those interested in the scientific aspects of photography may obtain copies by application to the Office of Public Information, Eastman Kodak Co., Rochester, N.Y.

**Infra-Red Photography**, by S. O. Rawling, D.Sc., F.I.C., F.R.P.S. Published by Blackie & Sons, Ltd., of London, 56 pages, price \$1.50.

This splendid little book gives a full explanation of both the proper methods of using and the applications of Infra-Red photography. The author emphasizes the essential simplicity of the operations and removes much of the mystery previously surrounding this new development in photography.

# Classified Advertisements

This is purely a convenience department for the reader and for that purpose offers Classified Advertisements at cost. 4 cents a word; minimum \$1.00 each insertion. Dealer merchandising ads must be placed in display space at 30 cents per agate line. Position Wanted ads, one insertion free. Copy for this department must reach us on or before the 15th and in every case be prepaid.

Items advertised in these columns may be purchased C.O.D. subject to examination and C.O.D. subject to ten days free trial if sent by express. If in doubt, safeguard yourself.

## OUTFITS FOR SALE

◆5x7 Home Portrait Graflex with 10" Zeiss Lens, cut film magazine, Zeiss filter, sun shade, filter case. All like new. \$145.00. William Jacobs, 572 Crestline Drive, Los Angeles, Calif.

◆Movie Camera. Eastman f:3.5 Model B and Kodascope C Projector. Both for \$50.00, new condition. Glenn R. Peterson, R 7 Fairfax St., Kalamazoo, Mich.

◆Kodak Pupille, f:2 lens, Range Finder, 2 color filters and case, like new, list \$90, price \$50. Rolleiflex 2 1/4x2 1/4, latest model f:3.8, 1 set proxars, color filter, sun shade, 2 cases, brand new, cost about \$130, price \$75. No trades. Miss Grace Greenway, 4324 Maryland, St. Louis, Mo.

◆3 1/4x4 1/4 R. B. Graflex, Series C. 6 1/2" Cooke Anastigmat f:2.5, like new, \$150.00. J. H. Weiser, 2515 Piedmont Ave., Berkeley, Calif.

◆2 1/4x3 1/4 Ensign Special Reflex, 5" Aldis Butcher f:4.5 lens. Double extension, rising, falling front. Filmpack adaptor, focusing panel. Graflex back. Very new condition. \$35.00. Cutfilm magazine, new, \$7.00. Fein, 202 East 31st St., New York, N. Y.

◆National Graflex, heavy leather carrying case. Copying attachment, sun shade, new condition. \$76.00 value for \$48.00. Write: R. J. N., c/o Camera Craft, 703 Market St., San Francisco, Calif. Or phone DOuglas 4242.

## POSITIONS WANTED

◆Fully experienced all around photographic and optical goods salesman, capable and accustomed to managing department, wants permanent connection. Can furnish highest references. Will go anywhere. C. G. G., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆Photographer, aged 40, in wholesale kodak finishing for past five years, wants similar work in Northern California. Excellent references. Chas. Knight, 1421 - 16th Ave., Seattle, Wash.

## THE MINIATURE CAMERA IS HERE TO STAY!

Liberal allowance on your old camera for a Leica or other miniature camera. LEICA OWNERS: A new, portable copying device with focusing template and legs, \$9.75. Sample vest pocket tanks, \$1.00.

**MINIATURE CAMERA SHOP**  
1600 Post St., San Francisco

## LEICA, USERS

Send for prices and description of accessories made by: S A C, 1600 California Street, San Francisco, California.

## POSITIONS WANTED

◆By receptionist accustomed to catering to high class clientele, young, cultured, and attractive. Excellent references. Prefer San Francisco and vicinity. E. R. W., c/o Camera Craft, 703 Market St., San Francisco, Calif. Telephone WALnut 8270.

◆By ambitious, conscientious young still and motion picture photographer. Capable of managing photographic department of industrial plant. Age 30, over six years experience including motion picture laboratory management and production. Fred R. Jolly, 5426 Shafter Ave., Oakland, Calif. Olympic 2247.

◆By young woman experienced in coloring of movie films, lantern slides, portraits, or any commercial work. Can supply references. Nettie Hamlin, Shreve, Ohio.

## OUTFITS WANTED

◆Wanted: 4x5 R. B. Telescopic Graflex without lens. H. G. Frederick, Box 517, Fort Bragg, Calif.

◆3 1/4x4 1/4 or 4x5 speed graphic, will consider reflex or hand camera if superior instrument, accessories, cash. C. deKiewiet, University, Iowa City, Iowa.

## FOR SALE OR EXCHANGE

◆Type-A Paasch Air Brush, hand pump outfit. 5x7 Seneca Competitor View with anastigmat lens, holders. Want 11x14 wide angle lens, or 3 1/4x4 1/4 Graflex. Quan, Box 243, Jerome, Ariz.

**GOOD ALLOWANCE** for Firearms, Microscopes, Binoculars, and Celestial Telescopes, on any photographic equipment, motion picture or still, and Bausch & Lomb Spotting Scopes, and Binoculars.

**NATIONAL CAMERA EXCHANGE**, 5 South Fifth Street, Minneapolis, Minn.

**NEW** a simple process for making **ARTISTIC PHOTOGRAPHS** from ordinary prints and snapshots. This process eliminates complications. Produces work of the highest quality. Endorsed by leading authorities. Samples of the work post free to those interested. Instructions and outfit \$5.00, postpaid or from your dealer. Chas. Willey, East Patchogue, Long Island, N. Y.

## CINEX 16 MM. FILM

Regular speed — 100 ft. \$3.25; 50 ft. \$1.75. Nonhalation supersensitive Panchromatic for night shots, interiors and exteriors 100 ft. \$4.50. Processing in San Francisco included. Stamp brings Sample. **CINEX FILM LAB.**, 221 Golden Gate Avenue, San Francisco.

# C A M E R A



From the Exhibit at "683 Brockhurst"

Thurman Rotan



# CRAFT

REG. U. S. PAT. OFFICE

**MARCH 1934**  
**VOL. XLI Number 3**  
**SAN FRANCISCO**  
**• CALIFORNIA •**  
**PRICE 20c**



## In This Issue

**VENUS AND VULCAN . . . . . William Mortensen**  
**THE CANDID CAMERA . . . . Charles Randebaugh**  
**HOW IT WAS DONE . . . Dr. George C. Poundstone**  
**FIVE GRAIN MOVIES . . . . . Cinema Section**





Photo by H. Armstrong Roberts



"REMEMBER, JOE?  
LET'S BUY SIX  
MORE PRINTS"



Amateurs want brilliancy, detail, contrast. In Nomis they get all that. They're happy. They order more prints.

Uniform. Fewer make-overs. Less waste. More profit. Use coupon.

**THE HALOID COMPANY, Rochester, N. Y.**

New York Office: 225 Fifth Ave. Chicago Office: 68 W. Washington St.

Los Angeles Agent, A. H. Muhl, 1121 S. Los Angeles St.

San Francisco Agent, A. H. Muhl, 222 Kearny St.

The Haloid Co., Bldg. 3,  
Rochester, N. Y.

Please send 2,500 sheets,  
2 $\frac{3}{4}$  x 4 $\frac{1}{2}$ , for this \$5.00.

Name .....

Address.....

HALOID  
**NOMIS**  
NO MISS



# *The indispensable* **CUT FILM**

## **SUPERSENSITIVE PLENACHROME**

The experienced professional and the discriminating amateur agree in demanding a negative medium giving the finest results over the widest range of subjects. Both choose Supersensitive Plenachrome because it combines:

1. High speed, wide latitude and beautiful emulsion balance.
2. Full sensitivity to all colors except spectral red.
3. A faithful rendition of tonal values—both for studio subjects and outdoor views.
4. **OUT OF THE DARK**—for it may be developed by inspection under red dark-room light.

Supersensitive Plenachrome is now available at the price of regular Portrait Film.



**BRANCHES:** Boston, New York,  
Cincinnati, Chicago, Kansas City,  
San Francisco, Los Angeles

MADE IN AMERICA BY  
**AGFA ANSCO CORPORATION**  
BINGHAMTON, N. Y.

Please mention Camera Craft when corresponding with Advertisers



# COMING

William A. Palmer, editor of our Cinema Section, has prepared an unusually instructive article on "Special Camera Effects." In it he will describe, in full detail, how to obtain a number of the most useful trick effects, with an ordinary camera. Among the most interesting of the effects described is that showing how to make a movie within a movie. In other words a picture showing an audience watching a movie. Watch for this in our April issue. Mr. Palmer would like to have readers let him know what type of articles is of greatest interest to them.

P. Douglas Anderson, A.R.P.S., whose article on "Outdoor Portraiture" in our October issue received much favorable comment, has devised a splendid means of illustrating the various lightings that may be obtained outdoors. His article "More About Outdoor Portraiture" will appear in an early issue.

George H. Needham, F.R.M.S., whose article on "Low Power Photomicrography" appeared in our February issue is now working on a second paper which will discuss the ramifications of high power work. This paper will be of great interest to those who are doing advanced work in photomicrography.

Albert Jourdan has prepared a very instructive article describing just how he performed an actual commission for a montage photograph, "A Job of Photomontage" will interest both the professional and the amateur for the principles of montage have a wide application.

Thomas A. Wilson, M. S., has devoted much time and study to the subject of composition. He has prepared a series of three illustrated articles which we are confident will clear away much of the mystery surrounding this important aspect of picture making.

Robert Mackay has for many years been connected with a large engraving firm and has also sold a quantity of photographs as a free-lance. Such training makes him eminently fitted to write on "Photographs For Reproduction." We specifically asked Mr. Mackay to write this article because of the large number of requests we received for more of such material from those who read his "The Print for Rotogravure Reproduction" in our September issue.

Bland H. Casebolt has established the fact that he has much helpful information to convey to the miniature camera user. His article in the November issue was highly praised, and the same is equally true of his second paper in our January issue. His next article will describe in detail a method of copying for the miniature camera fan that does not involve the use of the camera

P. H. Oelman is a successful illustrative photographer, an instructor in photography, and a prominent pictorialist. Several of his pictures have won award in our advanced competition. He is convinced that the practice of still life photography is a most practical method for learning a great deal about both composition and lighting. His article on Still Life Photography will be written from that view point.

## Rolleiflex Cameras

### PRECISION

Quality and Precision are noticeable in every detail of this camera—in its brilliant Zeiss Tessar lens, its automatic and exact functioning, the unusual simplicity of its Compur shutter, in its inclusion of every factor essential to perfect photography.

### SIMPLICITY

The Rolleiflex is the only camera with one lever on the Compur shutter. Setting and release are performed with practically the same movement. It eliminates the elements of guesswork and chance, the possibility of focusing errors and the necessity of over-manipulation.

### AUTOMATIC FOCUSING

A high-speed focusing finder lens synchronized with the camera lens focuses your subject with exactitude and right side up on the ground glass focusing finder in actual film size. You are assured true needle-sharp and automatic focusing.

### VISUALIZATION

The colorful image reflected in actual film size on the ground glass finder indicates the actual appearance of your finished picture, indicating its suitability or negating its value.

### SUITABLE FORMAT

The square format of Rolleiflex pictures enables you to easily trim extraneous details. Picture size either  $2\frac{1}{4} \times 2\frac{1}{4}$ " or  $1\frac{5}{8} \times 1\frac{5}{8}$ " are in themselves sufficiently comprehensive to obviate the necessity of enlarging

*Send for Literature describing  
cameras and new accessories.*

**BURLEIGH BROOKS**  
127 WEST 42 STREET NEW YORK

Please mention Camera Craft when corresponding with Advertisers





*"Jean Harlow"*

*William Mortensen*

# Venus And Vulcan

William Mortensen

## An Essay On Creative Pictorialism

### Interpretations Of Reality

**I**N the days when the world was young and humanity was still in the period of its innocence, Art (if we are to believe Spengler and other philosophers of history) was the result of instinctive and intuitive reactions of joy, fear and wonder. But, we are told, when the serpent of Sophistication crept into this paradise, man turned crafty and knowing, and Art became calculating, self-conscious, and decadent. Judged on this basis, photography, as the youngest of the arts, is showing clear signs that it is about to doff its pinafore and enter into a swash-buckling, hell-raising adolescence. Among these signs we may note an increasing number of discussions (of which this is one) of the true end and significance of photography. It is evident that a spirit of healthy dissension is abroad in the ranks of photographers, and that where once their one thought was to stand together against the jeers of other arts, they have now sufficiently found themselves to form inner alignments, parties and schools.

When Dr. Draper in 1840 posed his sister under the noonday sun and focused his weird contraption of lenses and chemically treated plates upon her for twenty minutes, he probably had no intimation of the awful consequences of his act of taking the first photograph of a human countenance. To Dr. Draper and the other pioneers photography was a scientific issue merely, complicated by almost insuperable technical problems. It was as a scientific curiosity that the camera made its first public appearance. For years the simple wonder of the fact that this instrument was able to record the simulacrum of everything that its glassy eye beheld was enough to justify it. But soon, even in its quite primitive state, the camera made known its unexampled facility for recording and documenting events; and this was the second stage in its evolution. Then appeared the portentous phenomenon of a man named Eastman. His is the heavy responsibility of making the camera *popular* by putting it and



photographic materials within the reach of everyone. There ensued the era of the "snap-shot". Irresistible, indefatigable, the Kodak army swept round the world, from Eiffel Tower to Matterhorn, from Karnak to Taj Mahal, and wherever they went there was a tremendous clicking of shutters. Events and persons far better forgotten were given a fearful immortality. And this was the third stage.

Early in the snap-shot era the development of photography reached its fourth phase. To the accompaniment of jeers, groans and catcalls from the practitioners of the older graphic arts, the first London Photographic Salon timidly made its bow forty years ago. That this young upstart, this scientific toy, the camera, should dare to artistic pretensions, was to painters, etchers, lithographers, a jest of epic proportions. And to tell the truth there was much justice in their merriment, for the early salons were mostly made up of pictures that were in essence simply superior snap-shots. But amongst them all were a few prints that, by reason of their imaginative quality, stood out against the Olympian laughter of the Academicians.

Aside from the manifest shortcomings of taste and artistic training betrayed by the first salons, the thing that most drew the fire of critics was the essentially mechanical nature of the camera itself. "The camera is merely a recording instrument," they said, "and has no more to do with art than a thermometer or a stethoscope. It is like an idiot's eye: it sees everything and is incapable of saying anything about it." Stung by this rebuke, the early pictorialists began doing everything in their power to conceal the clean lines of their images. They diffused their pictures till all their forms sprouted whiskers of cotton wool. They indulged in various ill-advised efforts to imitate paintings of the boudoir school. They abused the gum-bichromate process so that their pictures lost all sense of definition and most of the half-tones.

Despite the many departures from good taste and good sense and the uncertain technique of these pioneers of pictorialism, the quality of the work exhibited in the salons gradually took on substance and dignity, the clamour of the critics became less strident, the public became more generous in its recognition, and what was most important, the photographers shed their crushing inferiority complexes and began to take candid stock of themselves. And at this point, which is coincidental with the last few years, photography entered into its fifth phase. Pictorialists, no longer obsessed by what other artists thought of them, began to give consideration to the implications, functions and aims of their own art. Should photography be imitative, representative or expressive? What is the importance of technique? What of processes that are not strictly optical, mechanical and chemical?

The effort to answer these and similar questions revealed a wide divergence of opinion and gave rise to corresponding divergence in practice. No longer is it possible to classify a photographer as simply good or bad, as a portrait photographer, or as a maker of landscapes. For



*William Mortensen*

there are now evident several distinct schools of thought and procedure in the pictorial field.

The fundamental division between these schools seems to be based on their varying methods of dealing with reality. Reality—the substantial world of shapes and colours, lights and darks, people and personalities, with which we are surrounded—is the material with which all graphic artists must deal. In grappling with this raw reality artists resort to various methods. To some of them Reality is something to be embraced; to others, something to be moulded; and to still others, something to plunge into and pass beyond.

The first method we may call—because it frankly embraces reality—realistic. The realist takes the world as it is, and is damn proud of the fact. The essence of his method is non-selectiveness. All things that choose to record themselves on his negative are equally sacred. Choice of subject is of no account to him; it is the completeness and literalness of rendition that matters. He lays great stress on the “photographic” quality of his photographs: that is to say, he strives, by all the resources of fine lenses, filters, long exposures with reduced aperture, and super-sensitive film to get onto the negative every thing recordable in the subject, and by means of a contact print on glossy paper to give a complete and objective replica of it.

The principal exponents of this manner of working are Americans, and the chief stronghold of the school is the Pacific coast. One phase of their peculiar technique led to their being tagged the “F. 64 group”, a convenient and concise appellation which they themselves have not disowned.

Tested by its results this school fluctuates between commendable sincerity and deplorable taste. I attribute its present vogue to a healthy reaction against the weakly romantic and sentimental trend of early pictorial photography. Its adherents are outspoken and obviously honest in their belief that photography culminates and fulfills its destined function in their movement. They have a clearly reasoned and consistent ideology, and, more than any other group, have recognized and defined their objective. However, my own feeling is that they have set out to harrow a very sterile and unfertile field, and that they will speedily exhaust its possibilities. Though their technical accomplishments are noteworthy, the ideal they have set up of complete literal recording is a very primitive one,—a good beginning but not an end in itself. What they offer is a discipline, and an excellent one; but so far they offer nothing beyond the discipline.

To the practitioners of the second method of coping with reality the material that the world affords is something to be dealt with *creatively*, respecting it as the sculptor respects the tough marble under his chisel, but not permitting it to dictate the bargain. The “thing-in-itself” is of no account save as a vehicle of expression. Hence the forms, the lines, the details are all subject to significant simplification and alteration in order that the *picture-idea* may more clearly express itself. Hence all striving for greater and greater detail, all straining to capture subtleties of tone and texture, even all searching after refinements of technique,



*"Mark of the Borgia"*

*William Mortensen*

are, in themselves, completely irrelevant to the making of pictures. To the adherent of the Non-realistic, creative manner of working, the finished picture is the be-all and end-all, its own aim and its own justification.

The Classic and Romantic are simply variants of the non-realistic method. Although these two are traditionally represented as diametrically opposed in all respects, they are in fact much closer to each other than they are to the position of the Realist. Their similarities are much more numerous and much more significant than their differences. One may say that the Classic represents the impersonal, passive aspects of the non-realistic school, and the Romantic, the personal, active aspects.

The classic method subordinates the personality of the artist, and, stripping away all excrescences of time and place, exalts the timeless, universal qualities of the subject. Details and textures are swallowed up in the large conception of the whole. Even where action is indicated there is a sense of repose and balance. Though classic art may find its subjects in everyday life, it stands above the turmoil, remote and austere. Dealing with familiar things, it does not invite familiarity. Egyptian, archaic Greek

and, above all, Chinese art typify the classic spirit. But not all the classicists are dead by any means. Echague, the great Spanish pictorialist, is pre-eminently a classicist in thought and method.

The romantic method, on the other hand, exults in the personal quality of the artist's idiom. Rather than exercising restraint, it glories in the exuberant outpouring of forms and ideas. Rich, strong contrasts, both in subject matter and execution, lend a note of excitement. The *expressive* qualities of line and mass are exploited to the utmost, and the Grotesque becomes important. Transitory moods and fleeting emotional impressions are emphasized. It is recognizably our world that Romance deals with, but somehow transfigured by mystery and surprise, and illuminated with strange lights.

One misguided and now nearly out-dated manifestation of the non-realistic method in photography needs to be mentioned if only to disown it. This is the Fuzzy-Wuzzy school of twenty years ago. Early pictorialists, distressed by the literalness of the camera, seized with avidity on the soft-focus lens as a means of suppressing irrelevant detail and securing breadth of effect. Unfortunately, relevant detail was equally suppressed, and the effect was not only broad, but mushy. Soft-focus is still occasionally resorted to; but, now as then, fuzzy forms, indeterminate outlines, emasculated angles, and a weakly sentimental atmosphere are the inevitable results of its use, owing to the essentially *non-selective* character of diffusion.

What the non-realistic seek is not diffuseness, but increased *clarity* of expression. To accomplish this, forms must be simplified or exaggerated, certain lines must be given significant movement, tonal contrast must be effectively placed, distracting detail must be suppressed. All this means *selection*. So the adherents of the creative school will for all stages of photographic procedure choose the equipment, material, and processes that are most susceptible to control; for it is through *control* that selection is achieved.

Recent German publications have hinted at a third method of dealing with reality, one in which the unquestionable high technical attainments of the realists may find their logical outlet. The accomplishments of this method—at present practiced only by a small group of German photographers—are sometimes credited to the F.64 school, but these accomplishments represent a different and more significant departure.

This new method has been made possible by late developments and refinements of optical equipment. I have chosen to call the method "Meta-realistic", because it does not stop with the world as we know it, but plunges into it and passes *beyond* it into a new world of beauty and fantasy. The camera has a unique capacity for seeing further *into* a thing than the eye does and discovering refinements of texture, differences of tone, and tiny hidden patterns that neither the casual eye of the average beholder nor the searching eye of the artist suspected were there. The normal eye has a range of sensitivity that extends from the slow vibrations of the red rays to the high speed of violet. The camera makes





*William Mortensen*

visible even the extremely slow vibrations of moderate heat, and on the violet end of the spectrum reaches far beyond the eye's capacity.

While these are not things that lie within average human experience, they are nevertheless capable of arousing aesthetic emotion. The thought that there are unsuspected universes within our grasp, limitless fields of exploration no further away than the ends of our noses, is like a cold wind blowing from the spaces between the stars, causing us to dream and to wonder. And so it happens that the work of the Meta-realists is pervaded with the same "strangeness added to beauty" that distinguishes the best work of the Romantics.

At present the only exponents of the true Meta-realist procedure are a few German photographers. They push their optical equipment to strange extremes, not to reveal unimportant detail, nor as a mere technical stunt, but because the result is beautiful. In *Das Deutsche Lichtbild*, 1933, are published numerous examples of their work—patterns of dew drops on grass blades, spider webs, amazing forms of plant growth—opening to us a realm of a new kind of beauty, magic and unearthly. The Meta-realists represent a phase of pictorial photography whose very existence is barely glimpsed, and whose potentialities are at this time unpredictable.

\* \* \*

When the foam-borne Venus, goddess of beauty, came to high Olympus, Jupiter, in his quaint way, married the lovely creature to Vulcan the blacksmith. To the superficial critic this union might appear a sad *mésalliance*; but, by all accounts, the match panned out very well. To be sure, there were a few fearful rows when she called him a dull-witted yokel that didn't appreciate her, and he denounced her as a frivolous, irresponsible hussy, but on the whole they got along very amicably. Unquestionably she brought light and a new meaning into his dark existence, and he bent all his skill at the forge to fashion jewels for her adornment.

The wedding of Technique to Aesthetic Impulse is a difficult problem. Technique is apt to be over-earnest and self-assertive, and has been known to claim that he married A. I. only in order to make an honest woman of her, a statement which she justly resents. She, in her turn, has sometimes compared her family to his family to the great detriment of the latter. Each has on various occasions packed up and walked out on the other, but they just don't seem to be able to get along without each other.

To study the contemporary relations of this quarrelsome couple will be the object of further articles of this series. A permanent reconciliation may be too much to hope for, but it should be possible to establish a basis for better future understanding.

*This is the first of a series of five articles by Mr. Mortensen. Next month he will write on the "Sources and Uses of Material".—ED.*

# How It Was Done

Dr. George C. Poundstone

THE Desert Flower is not a preconceived piece of work, but rather one of those lucky shots that contained the essence of what was later worked into its finished form.

All night we had been coming up out of Egypt on a not too comfortable train and in the early morning as we were nearing Jerusalem our train was stopped for a few moments in a barren, desolate place. No sooner had the train ceased moving than a crowd of children, with their hands full of wild flowers, came screaming beneath the car windows for the passengers to buy their flowers or to give them backsheesh.

I was on the platform at the rear of the train and as I descended to the bottom step, I saw this girl, somewhat older than the rest and a little too modest to join in the screaming for business or alms. The pose was excellent. The train was starting to move, so turning my Graflex sideways I made the exposure without attracting her attention. We passed on to more exciting things and no more was thought of the girl or picture until months later when the negative was developed and a print made. My disappointment was great at discovering the railroad tracks and the hand-car which I had not seen at the time of making the exposure.

The picture of the girl was good, the pose was excellent and something should be possible with such material. I first needed an appropriate title and after discarding many decided on "The Desert Flower." I had the flower, whether it be the girl or the wild blossoms so I searched through my negatives taken in Egypt for a desert. The one selected had been taken on a fearfully hot day when our auto had broken down and left us stranded for nine hours in that barren waste, while the Arab drivers took the car apart and put it together again binding it up with wire so that it would really run.

Enlargements were made of the desert and the figure, some difficulty being experienced in getting the proper relative sizes and tones. The figure was carefully cut out; part of the foreground going with the figure was made to match that of the desert. The edges on the back of the cut out figure were carefully thinned down with a razor blade and placed in position on the print of the desert. The two parts were placed in a



*Straight prints from original negatives*

printing frame, under glass and copied. Pasting of the parts together is not desirable on account of warping which is more difficult to handle than reflections on the glass.

The original negatives were made with a Graflex on film pack with the shutter wide open, F. 4.5 exposure 1/25 sec. for the girl and 1/50 sec. for the desert. Enlargements were 11x14 on P.M.C. white stock and the copy negative was made on process film 3 $\frac{1}{4}$ x4 $\frac{1}{4}$ . The final enlargement from the copy negative is on Haloid Projecta paper XX, developed in the developer recommended by the manufacturers of the paper.

It is much more difficult to analyze ones own pictures than it is to analyze the work of someone else.

The placing of the figure is of prime importance, having more space in front of the girl than behind her that she may have room in which to move should she so desire. This necessitated the combining of two pebbly foregrounds, for there was not enough in the original negative to allow for that amount of space.

It has been suggested that the head should come against the sky, but my reason for raising the sky line above the head is to carry out the high view point that I actually did have when I made the original exposure. The zigzag lines in the desert influenced me in the selection of this particular negative that a greater appearance of distance might be secured.

The shadow of the girl makes an entry into the picture which is well continued by the lines of the desert higher up. While these lines go into the sky they do not have the effect of leading one out of the picture.

The attractiveness of this picture is much enhanced when it is made in a good sepia or brown tone.



*"The Desert Flower"*

*Dr. George C. Poundstone*

Finished print, resulting from the combination of the two prints on the opposite page.



# An Exposition of My Photographic Technique

## Portraiture

Ansel Adams

**P**ORTRAITURE is possibly the least understood phase of photography in spite of the fact that pictures of people are turned out of professional studios in astonishing numbers. As *photography*, the great part of the production is very bad; the profession compromises its craft and possible artistry in order to meet (on a profitable basis) the requirements of a very difficult public. The retouching, etching diffusing, coloring, fussy mounting,—in other words, the consistent departure from the principles of the medium, disturbs the serious worker and serves to break down any standards of photography which the public at large might possess. The portrait photographer, working in a true expression of his medium, meets a barbed-wire entanglement of such petty problems as wrinkles, lines, freckles, dimples, over-weight, underweight, heads with wrong shapes, heads with right shapes, smiles, scowls the big-business-scornful-look, the demure-debutante-look, etc. These seemingly ridiculous elements have a profound psychological significance; they reveal essential human conceit and vanity. Indeed, there are few individuals who are content to be recorded as they actually are. They may be scrupulously honest in their affairs, they may evidence complete integrity in their attitude towards the arts, but they are not honest towards themselves. The painter, the sculptor, and the photographer who essay portraiture are thwarted at the start by the painful dictations of vanity.

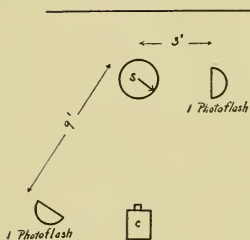
Nevertheless, I believe there is no phase of photography so interesting as serious portraiture. I do very little of it professionally for the simple reason that I will not compromise. I have a *battle-royale* about once a month over a wrinkle. Of course, I do not imply that the photographer should not consider the subject's desires—but it should be stressed that technical and aesthetic standards be maintained, and still be as lenient as possible to the requirements of the subject. I am going to re-state a manifesto of independence—I demand, as a photographer, that the public recognize the fact that the camera is more than an amusing toy, and that a photograph is more than a penny-postcard. Photography, when true to



*"Carolyn Anspacher"*

*Ansel Adams*

4"x5" Korona View; 12" Goerz Dagor; exposure for full duration of photoflash at F:32, on E. K. S. S. Pan., developed in A. B. C. Pyro; projection print on P.M.C. No. 10 medium, in Amidol.



itself, is as much an art as painting and sculpture. The portrait painter is not asked to submit sketches within twenty-four hours after the first sitting; he is not forced to complete his canvas "before the end of the week". He takes his time—the reasonable time required to produce a decent work of art. The photographer should not be compelled to work faster than the painter just because he is making a photograph. There is as much careful study and reflection required in the making of a fine photograph as there is in the production of a fine painting. It often takes weeks or months to produce the finest possible print from a negative; I frequently make several prints of one subject, mount them, and study them for quite a period of time before making the final print. The ultimate refinements of a photograph are seldom arrived at in the first printing. In portraiture, as in other phases of photography, the relations of tonal values are very subtle, and often, only after the print is complete, finished and mounted, are delicate defects revealed.

The logic of photographic portraiture provokes endless argument. Possibly, the first matter to discuss is the element of time in relation to facial expression. A photograph is not absolute—it is a "cross-section" of time. The photograph can record only *one* moment of the existence of the subject; the time interval may be practically instantaneous, or it may be extended over a period wherein the subject remains static. (The terms "Time", "Moment", "Interval" are used in the practical sense). This principle relates to all phases of photography. An expression—the motion of the features through an interval of time—is logically beyond the power of the camera to record in a single exposure. For instance—a smile, no matter how "literal" and pleasing it may be in a photograph at first sight, breaks down, on prolonged examination, into a grimace—an unreal tension of the features. In painting and sculpture it is possible to incorporate several moments of time in relation to movement and expression in one work. (Rodin, in the large figure of "St. John", proved that in sculpture the artist could indicate motion by the simple means of progressive structural and anatomical moments organized so that the progression of the moments in relation to the composition would subtly indicate movement). While the Rodin statue is quite literal in detail and proportion it is nevertheless obvious that a photograph of a similarly proportioned figure in action would be quite different in aspect (from a literal and anatomical point of view). The camera would crystalize the object as *it existed in that particular instant of time*, which is not the same as the psychological actuality of the object in motion as seen by the eye. If the camera permitted the moving object a moderate interval of time in exposure the result would be a hopeless blur. On the other hand, a rapid series of short exposures of a moving object on the same plate would be a legitimate attempt to suggest motion; the superimposition of several *clear* images would be justifiable in the domain of pure photographic expression. The reader, I hope, is aware that I am not confusing the cinema with the still picture in this discussion. The motion picture is entirely different in conception, *rationale* and purpose. Staticism in the cinema is as false as movement in still photography. But we must not forget that



*"Beniamino Bufano"*

Ansel Adams

8"x10" Century; front combination of 12" Goerz Dagor (18"); exposure for full duration of photoflash; between F:22 and F:32, on E. K. S. S. Pan., developed in A.B.C. Pyro; contact print on Vitava Projection, in Amidol.



the still picture can *symbolize* movement through design and tonal relations.

Continuing the argument, in direct reference to the problem of facial expression, I would state that a photographic portrait is a record of a head or figure composed and organized as a *static* thing; I photograph heads as I would photograph sculpture. Occasionally a suggestion of animation is included, but I conscientiously avoid obvious dynamic expressions. An expression which is naturally poised through an interval of time not greater than the time of exposure possesses photographic possibilities. The reader might say that this attitude is one of coldness, austerity and lifelessness; it is certainly a departure from the everyday methods of studio portraiture. But now let me mention the compensations from an aesthetic and technical sense. To begin with, the head or figure is clearly presented as an *object*, the edge, mass, texture of the skin and the general architecture of the face and form is revealed with great intensity. This revelation serves as the foundation for the spectator's estimation of the subject; the expression—many possible expressions—are implied, whereas, if an attempt is made to capture one specific expression (of a dynamic nature) the entire "message" of the picture is restricted to that alone. The face in repose often reveals more of the person's essential characteristics than the same face in one or several incompletely presented expressive phases. As for the technical advantages, the retention of pure photographic values in "static" portraiture is more certain. In a later article I will attempt to present some ideas on News and Documentary photography wherein the subject dominates the presentation. This article is concerned with a "purist" approach, and is not addressed to those who stress representation of subject material without concern for basic photographic values.

The purely photographic aspect of portraiture might be integrated in the following phases:

1. Static presentation of subject.
2. Composition based on a geometric analysis of the architecture of the head or form.
3. Intensity of textural presentation.
4. Complete focal depth.
5. Avoidance of retouching and manipulation of negative and print.
6. Simplicity of treatment and mounting.

The first and second phases have been discussed sufficiently. The third phase is of great importance; it is controlled by the lighting and the general photographic processes. There is no light as completely satisfactory in general photography as natural light—sun or open sky. Sunlight is the very best light for some subjects; Weston has done amazingly beautiful things in direct sunlight, the head or figure usually against the sky. Outdoors in shade one obtains a very fine balance of light and a more general illumination for which, as a rule, a much more intense developing and printing is required. However, natural light has certain disadvantages compared to artificial light as far as portraiture is concerned, chiefly in speed. I have been using the photo-flash for most of my portraits—it is a powerful and rapid source of light. One photoflash globe, about three





*"Portrait"*

Ansel Adams

4"x5" Speed Graphic; 9" Goerz Dagor; exposure for full duration of photoflash; between F:22 and F:32, on E.K. S.S. Pan., developed in A.B.C. Pyro; projection print on P.M.C. No. 10 normal, in Amidol.



feet from the subject, is several times faster than sunlight (when using supersensitive or portrait panchromatic emulsions.) Its speed is about 1/40 second—there is little chance for the subject to move even an eyelash during that interval of time. The motion of the head due to respiration or nerves and the “blinking” of the eyelids is overcome. (Practically everyone “blinks” at the flash, but only *after* the flash is set off—it does not record on the film.) I use lighting only in reference to the sculpture of the head—there are no rules which can be applied in every case. If possible, I prefer to use a second synchronized flash globe at a considerable distance from the subject instead of a reflector—the light is more “alive” than reflected light. My lighting apparatus may be simply described as follows: I have two rectangular light boxes on adjustable tripods. In both boxes are two independent circuits which can be combined if required, or connected separately in series. One circuit is for the “finding” lights (two 100 watt globes in each box). The other circuit is for the flash globes which are connected through a synchronizing shutter. The lights are arranged, the picture focussed, the negative holder inserted in the camera and the exposure made without turning the finding lights off. When the shutter is operated the flash globes are set off—the exposure light is exactly the same as the finding light in direction and balance. This apparatus could easily be adapted to a reflex camera. By the use of this apparatus I am always aware of the exact lighting of the subject at the moment of exposure. I use the photoflash chiefly on account of speed and the beautiful quality of light obtained. I cannot see any particular advantage of ordinary artificial light over photoflash except economy. To produce an equally effective illumination with photoflood, arc light, etc., compared with photoflash, it is necessary to subject the sitter to an unpleasant amount of light.

I try as much as possible to illuminate the eyes—I do not necessarily mean that I always work for a “catch-light” but I try to show the eyeball. Often I have been able to show the light passing *through* the eye; the effect is very beautiful and adds a certain valued intensity to the features. Of course, there are times when just the opposite procedure is required.

I use the Eastman SuperSensitive and Portrait Panchromatic films—the former seems better, on account of its long scale, for more brilliant subjects. I usually develop in normal A B C Pyro, but sometimes use less carbonate (C), especially when there are strong whites in clothing, etc., that might “block up” in a normal developer. I also frequently develop more than normal time so as to avoid flattening of skin textures. I print or project usually on PMC No. 10—Normal or Medium—or on Vitava Projection No. 2 F.

The backgrounds vary for each subject—as a rule I prefer to do large heads, and I favor an even-toned black screen several feet back of the head. Occasionally I use a pure white screen and obtain varying tones by placing the screen at different distances from the subject and lights. Once in a while I will place the lights so that the white screen is brilliantly illuminated. A head or figure photographed against an actual or “environmental” background presents additional difficulties.

The fourth phase—complete depth of focus—is of great significance.

4"x5" Korona View; 6" Tessar;  
1/25th sec. at F:16, on E. K.  
Verichrome, in A. B. C. Pyro;  
projection print on P.M.C. No.  
10, in Amidol.



*Ansel Adams*

There is nothing so disturbing as seeing a portrait with the eyes clear and the ears blurred. There should be the greatest possible depth of focus throughout the picture. I prefer a rather long-focus lens—there is less "looming" of perspective. I find the greatest depth is obtained by using not less than a 12 inch lens on a 4x5 and not less than an 18 inch lens on an area about 6"x8". Certain problems require a short lens, and it takes quite a little experimentation with the focussing for adequate results. I always focus first on the eyes and stop down for the required depth. I have an active complex against the use of a large aperture just for the sake of a rapid exposure in ordinary light.

The fifth phase, concerning retouching, etc., is covered in this and the preceding articles. Unless the print is sufficiently "deep" in tone the skin textures are weak and unconvincing. Ordinary portrait photography attempts to obliterate skin-textures by "light" printing and retouching; I work for just the opposite—a deep printing and frank treatment of textures. Occasionally a small mole or blemish on the skin is recorded as a minute point—too small to be recognized as an element of the image, and yet large enough to appear as a spot or a mechanical defect. I feel justified in removing something of that kind from the film or print, but I would never remove an obvious freckle, wart, line or characteristic skin detail.

The sixth phase, the simplification of the presentation of the print, has also been discussed. I mount my prints only on smooth white boards. There is nothing in all the pageant of photography so ridiculous as the commercial mounts and folders that "go with" the ordinary portraits.

Most of the books and articles on portraiture are exceedingly bad. Lighting "systems" are indicated by the thousand—back-lights, side-lights, top-lights, all kinds of lights,—and the student spends endless hours experimenting and fussing with complicated arrangements. There is only one correct lighting—that which is peculiarly applicable to the subject concerned, revealing the essential architecture of the head or form. Only good taste and common sense can define the details of procedure—there are no rules, "methods" or "systems". I am always amused at the elaborate lighting and arrangements employed by many professional photographers on rather commonplace subjects; how much more honest it would be to take the subject into the out-doors under an honest light and make a direct and sincere photograph. A large and pompous man-of-affairs is put in front of one light, back of another, under another, and perhaps a spot-light is used into the bargain; the result indicates that the gentleman in question is seated somewhere on an elaborately lighted stage—where he most certainly does not belong. I am indicating by diagrams the approximate lighting of the portraits reproduced in this article, but I do not want them to be taken as formulae—they are merely explanatory so as to show how the particular pictures were made, and not how other pictures should necessarily be made.

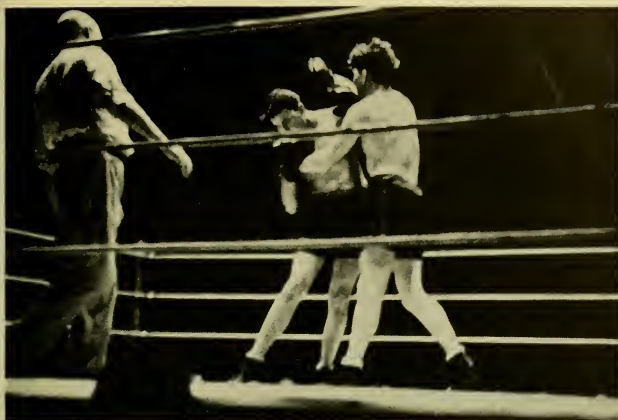
## The Candid Camera In Newspaper Work

Charles Randebaugh

THE genesis of the candid camera is somewhat obscured by claims of various manufacturers, photographers and publications. But whatever its beginning, it is daily playing a more important part in the photographic coverage of news events.

A "candid camera" photograph is primarily an unposed picture—a photograph taken without the subject's knowledge—and therefore is bound to have the quality of naturalness that is linked so closely with "action" in a news picture. Newspaper editors have found the unposed photograph far more preferable than the posed photograph for all types of news pictures.

Every photographer, as well as every news editor, knows that the moment the average person sees a camera pointed at him he grows self-conscious to a certain degree and becomes stiff and posed. Obviously the way to get an unposed picture is to take it without the subject seeing



No. 1. *Courtesy San Francisco Examiner*

*Charles Randebaugh*

Contax; 1/25th sec. at F:1.5; E.K. S.S. Pan., 10 minutes in normal dilution of Perutz developer.

the camera. Speed flashes with a large—i.e., a four-by-five camera—are fine things for snapping action pictures indoors; but the camera is so large that it attracts attention and after the first flash everyone in the room is aware that a camera is present.

With the advance of photographic technique, the creation of faster and faster lenses, the development of faster emulsions and the construction of small cameras utilizing all of the foregoing, news photographers find themselves at last with an instrument which enables them to get pictures which previously were unobtainable. A camera so small that it is more than half concealed by the hands passes unnoticed where a large camera would attract instant attention. The various meetings, court sessions and gatherings of all kinds which formerly were barred are now open. The candid cameraman can take pictures where he once had to seek permission of the subject and then wait for a recess. And the pictures he gets now are real "action" pictures. They show the news figure of the story at the exact moment he was making the statement which made the story. They show the defendant and accuser as they were on the witness stand, testifying under oath. The glassy-eyed, white-faced stare of the past is becoming a memory.

And what fields for new pictures the small camera has opened. "Human interest" can now be put into photographs just as it is put into news stories. The candid camera can picture types well, can get the



No. 2. *Courtesy San Francisco Examiner*

Contax; 1/5th sec. at F:1.5; E. K. S. S. Pan., 9 minutes in strengthened solution of Perutz developer.



*Charles Randebaugh*

interesting expressions which make people human.

The field for the free-lance candid cameraman is wide open, but rather disorganized because it is so new. A man who is good, and can convince others that his work is good, may make a connection with a large magazine, or newspaper. Consider Dr. Erich Salomon and Remie Lohse, probably the best known candid cameramen. If your work is as good as theirs, you can find plenty of magazines to buy it. Newspapers are not so apt to buy ordinary candid camera work, but show extraordinary candid camera work and you will find yourself with a fat check, or perhaps a good job.

Any small camera with a lens speed of  $f/2$  or faster can be turned into a "candid camera". This speed is necessary if one expects to be prepared for any conditions which may arise in shooting pictures indoors. Newspapers generally use either the Leica or Contax for this type of work, because of the lens equipment of these cameras, their fine construction, and because of the built-in range finders which assure quick and accurate focussing. And finally, both of these cameras employ an angle view finder, which permits the photographer to look in one direction while he takes a picture in another.

Speed in focussing is important to the newspaper photographer. He



No. 3. *Courtesy San Francisco Examiner*

*Charles Randebaugh*

Contax; 1/10th sec. at F:1.5; E.K. S.S. Pan., 9 minutes in strengthened solution of Perutz developer.

must have his focus exact, and he must get it quickly. There are times when he must shoot as quickly as he can hold the camera up to his eye and sight the subject. Let us say a person is to make a brief appearance in court. He has already made it clear he does not want his picture taken. This is the most difficult subject for the photographer—the subject who is on the lookout for cameras in order to avoid them or cover his face with his hand. The candid cameraman must be ready to shoot instantly, and perhaps can shoot only once. Parenthetically, it might not be amiss here to explain the ethics of the situation just outlined. Whether the person does or does not want his picture taken, he has appeared in a public place and is subject to view by any person who is in that public place. A certain official in San Francisco has often told witnesses who protest the presence of cameramen in his court. "This is a public courtroom, and only the size of the courtroom limits the number of persons who are present. The newspaper men are here to see and hear for the persons who cannot get into this room because it is so small. If the average citizen has a right to come here and witness the proceedings, he also has a right to see a picture of you here."

Next the candid cameraman finds himself at a gathering where there is no objection to photographs. However, to obtain the best results in unposed pictures, he must operate as unobtrusively as possible. Here the angle view finder comes in handy. When the subject is intent on the business of the day, the photographer can shoot "head-on" without the

angle view finder and without attracting attention. But when the person gets interested in "that little gadget" the cameraman holds to his eye, there is nothing left but to use the angle finder. The results with this are marvelous. Providing circumstances permit it, the photographer can take as much time as he wishes, and wait for the proper pose before he presses the shutter release. Illustration No. 2 was made in this manner. It was at the War Memorial Opera House, and I stood in an adjoining box, looking toward the stage. The subject was curious as to what I was doing, and finally looked where I was looking. Then I snapped the shutter.

Illustration No. 4 was likewise made with the angle view finder. This was taken the night of prohibition repeal in a "club" in a downtown hotel. I faced a wall for the brief moment the camera was held up for focussing and sighting.

Illustrations 4 and 1 also demonstrate another point the candid cameraman must bear in mind. Although he works with a high speed lens, he also works under adverse light conditions, and frequently must shoot at very slow shutter speeds. No. 4, for instance, was made at a fifth of a second. This speed, particularly with a focal plane shutter, would not stop the action of the man raising the glass to his lips. Nor would the  $1/25$ th of a second at which No. 1 was shot stop the action of the prizefighters. But—and this is the point—in practically every human action there comes some period at which the body is near a complete standstill. This is obvious on a moment's thought—but how many pictures are given a moment's thought? All that is necessary is to study the subject carefully and decide what is the moment to shoot. In both illustrations it will be noted the shutter was snapped at the exact moment the action reached its minimum.

Regarding exposure: use a meter if you must, but additional equipment merely complicates the job, and additional gestures merely invite attention. A little experience with indoor snap-shooting, and you soon learn to gauge the light sufficiently well to work without a meter.

By all means avoid the use of a tripod; it also attracts attention. With steady nerves exposures up to and including half a second can be taken with a camera held in the hand. It is advisable to lean against a wall or table wherever possible, or, better yet, sit down and rest your elbows on the sides of the chair or on the table.

A note on the technical end: (N.B., Mr. Editor: The writer assumes sole responsibility for these statements.) Naturally, it is desirable to get the fastest lens possible. Zeiss 1.5 on the Contax is the best I have seen. It certainly is the fastest manufactured. Its focal length of 50 mm. also appears best for general work because it covers an angle sufficient to include two persons without standing a tremendous distance away. However, I have a decided personal taste for the Leica, and believe that the new  $f/2$  Leica lens is every bit as workable. And anyone familiar at all with the 73 mm.  $f/1.9$  knows what wonders can be done with it.

Quite frankly, however, whatever lens used will be operated at its greatest aperture most of the time, even with supersensitive film, and then you will still wish for a faster lens, or faster film. Whenever we



No. 4. *Courtesy San Francisco Examiner*

*Charles Randebaugh*

Contax; 1/5th sec. at F:1.5; E.K. S.S. Pan., 9 minutes in strengthened solution of Perutz developer.

know the speed capacity of the lens has been taxed to its utmost, there is a simple means of getting the most out of the negative. This will offend the technicians among the readers—but remember, we are taking pictures for a newspaper, and the great god Deadline can't be bothered with grain. Two tubes of Perutz fine-grain developer are mixed in 36 ounces of water, and the negatives developed for 9 minutes. The manufacturer recommends one tube to 20 ounces, and developed at 10 minutes. But our system brings out an underexposed negative wonderfully, and at the same time gives us an extra minute to the good.

Grain, of course, is increased, but grain does not play an important part in newspaper work. The important things are speed and good contrasts. Nine minutes in the developer, a dousing in water, three minutes in fresh, strong hypo, and then two minutes per print—three minutes per print including the changing of negatives in the enlarger—that is speed. As for the grain, little of it is seen in the reproduction because of the coarse screen used in making newspaper cuts.

Enlarging is done by means of an horizontal printer utilizing a 1000 Watt lamp. Recently the Examiner has installed a new type of printer on which enlargements are made on chloride or contact paper. This enlarger uses only very thin negatives and of course is ideal for slightly underexposed film.

# Photo Flashing With A Graflex

T. K. Hastings

**W**ITH no claim of an original idea of synchronizing the Photo Flash Bulb with a Graflex Camera I am glad to convey my findings to all Graflex owners.

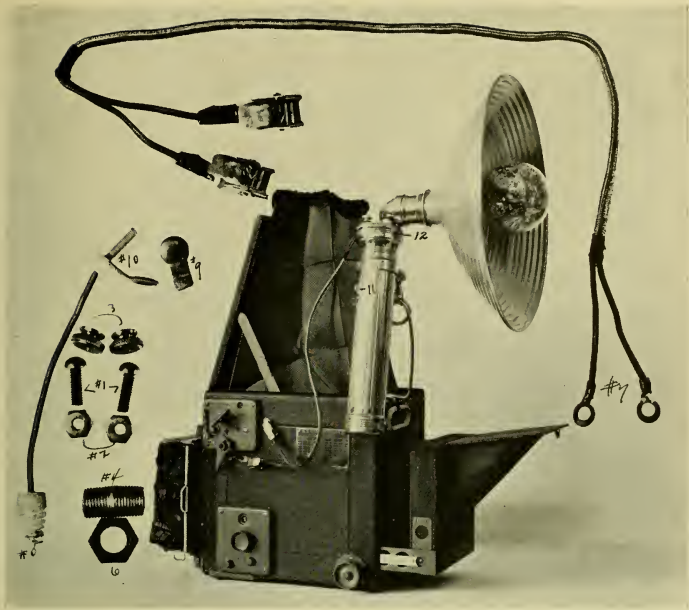
The method is quite simple, does not mar the camera and is detachable. One little screw does the trick.

The parts needed are, An Ideal Power Photo Flash Lamp with reflector and clamp, a 3 cell "Bond" Flash Light No. 3212, a Goose-neck Keyless Light socket, two clips from an Eastman Film Hanger, 2-8/32 Brass Machine Screws  $\frac{3}{4}$  inch long, 2 Hexagon Nuts, two thumb nuts (tops of Spark Plugs are right),  $1\frac{1}{8}$  Close Nipple,  $1\frac{1}{8}$  Lock nut and about 2 foot of Duplex Light Cord.

Remove the glass and reflector from the flashlight and procure a piece of fiber the same thickness as the glass and cut to the same diameter. If fiber is not to be had make up a piece by cementing with shellac parts of a broken Holder slide to the required thickness bore the two holes for the 8/32 (1) screws and one that the close nipple will screw into taking care that the holes are far enough from the edge to prevent a short circuit with the battery case or cover. Take a piece of  $\frac{3}{8}$  dowel rod and with a three cornered file make a thread (5) that will screw into the socket in the flash light, through a hole in the plug put a piece of insulated wire and put a globule of solder at the bottom for a terminal to contact the upper battery in the case. On the fibre disk that holds the lamp socket in the battery case solder a piece of insulated wire about 4 inches long to one of the rivets. Next put the two 8/32 (1) screws in the fiber disk described above and tighten the hexagon nuts (2) on top to make the terminals over which the thumb nuts (3) are used. Screw the  $\frac{1}{8}$  close nipple (4) about half way through and tighten the lock nut (6) on the under side, screw the Gooseneck Socket on the upper side connect the wire from the wooden plug (5) to one outlet of the socket and wire the other outlet to one of the terminals of the disc, connect the wire soldered to the disc in the battery case to the other terminal. Screw the battery case cover (12) or rim over the disc and the electric connections are complete. Remove the clamp from the switch socket which is not used and with a little bending it will clamp on the battery case and with the reflector screwed on the Goose neck socket the lamp is complete.

Loosen the four screws of the shutter mechanism cover (8) of the Graflex and slide under (9) which is made from the center contact of an old light socket (any piece of brass will do) about midway be-





*Showing separate parts and complete assembly*

tween the screws replace the cover tight assuring perfect contact. (10) is also a center contact of socket with a very fine spiral spring soldered at one end and a hole bored midway between the ends. To locate the correct position for (10) on the graflex is ascertained as follows: Set the shutter on "O" and tention "I" allow the mirror setting lever "H" to raise slowly and looking into the back of the Graflex find the point when the mirror just clears the lens opening which shows the position of "H" when contact must be made with the spiral spring on (10) and complete the electrical circuit, It may be necessary to scrape off the lacquer on (H) to insure a perfect contact.

The Harness (7) is made up of a piece of duplex light wire with clips from an eastman film hanger on one end and loops on the other.

To Operate—set the mirror set shutter on "O" and tension on "I" clamp lamp on front of Graflex connect Harness with terminals at (9) and (10) insert Photo Flash Bulb raise the safety switch (11) on battery case, focus push shutter release and the subject is shot.

With this arrangement the camera may be held in the hand as the speed of the exposure is determined by the bulb night pictures can be made out of doors as in day time with good effect.



"A Modern Venus"

Advanced Medal Print

H. F. Kells

■ "A Modern Venus" by H. F. Kells is a finely executed figure study, entirely aside from its association with a famous statue. It is evident however that the most striking feature of the picture, at least on first observation, is the remarkable semblance of sculpture which the artist has achieved. This is especially noticeable in the drapery which certainly appears to be carved out of stone.

At the present time photographers are particularly sensitive to the charge of imitation of other mediums, because of criticism along these lines by the "purists" in photography, and other groups.

Two questions may then come to mind. Is the picture to be credited with artistic merit because of the sculpture-like appearance of the figure? If not, is this appearance to be considered a detriment because it may be an imitation of another medium? The first question would be answered in the negative because this is a technical achievement and does not necessarily imply artistic excellence. As for the second question the crux of the matter is this.

We desire to portray physical perfection in women. For centuries the statue of Venus has been a symbol of the perfect female figure. Consequently the pose and appearance of the picture is adjusted to call the statue to mind not with

(Continued on Page 132)



"Queen of the Parilla"

Stanley R. Jordan

Amateur Medal Print

■ Stanley R. Jordan's "Queen of the Parilla" is an effective and pleasing portrait, which we might describe as being in a restrained modern spirit. Modern because of the clear, frank photographic rendering. Restrained, because the technique has not been carried to its logical extreme. Some retouching has been employed and the stop used is not small enough to keep all planes in sharp focus. For some examples of portraiture in the full purist style see Mr. Adams article in this issue. The white background is well selected for this subject and assists in conveying a sense of the third dimension. One could wish that the right shoulder was not quite so large in relation to the face and to the left shoulder. This could be corrected by using a lens of longer focus or simply working farther back with the same lens.

Data: 4"x5" camera; 10" Zeiss Tessar; exposure by Mazda light on Portrait Pan. in A.B.C. pyro; print on Opal paper in M.Q.

any idea of imitation or of reproducing the statue, but to take advantage of this age old concept, so that the association will enhance the idea of the picture. Thus we find an absolutely justifiable and effective use of symbolism, that does much to emphasize the idea we are trying to portray. And so, in the manner of an excessively obtuse philosopher, we arrive at the decision that if one understands this picture our questions need never be asked.

Data: 5"x7" Agfa View with 14" lens; ½ sec. at F:6.3 on E.K. Portrait Pan., with 2 500 W lamps; Developed in D-76; print on P.M.C. No. 7 in D-72; Toned in Sulfide, rinsed in 1% solution of carbonate between bleaching and toning.

■ Only those who have attempted to photograph birds with a pictorial objective in mind will appreciate the tremendous difficulties which Mr. Sato has surmounted, and the vast patience which he must have employed in producing "Lunch For One". The bird is perfectly placed to form the principal accent of the picture and the remainder of the picture space is well broken up by the interesting and decorative pattern in the water.

Data: 4"x5" Graflex 7 inch Carl Zeiss Tessar 1/350 at F.5.5 on E.K. Super Panchromatic Film Ppro: Metol; Opal "W" Print.

■ On a number of occasions we have heard amateurs enquire as to just what it was that made some animal photographs pictorial and others not so. Perhaps this picture will help to clear up the difficulty. In "Untamed", Mr. Muller has been unusually successful in bringing out strongly, a combination of the two elements that constitute the essence of our reactions to this animal. The lowering head and the menacing eyes convey a vivid impression of the dangerous sullen, unfriendly nature of the beast, and the power of destruction that lies behind those threatening eyes. The lovely pattern of the coat, the graceful contours of head and whiskers, suggest the beauty that we also associate with this animal. It is this combination of danger with beauty that makes the tiger so interesting and thrilling to behold, and because Mr. Muller has conveyed these elements with force and simplicity the picture is lifted out of the record class and becomes pictorial.

The triangular patch of light tone in the background plays an important part, by breaking up the background area, assisting the effect of the third dimension, and establishing two lines that lead directly to the eyes, the most important part of the picture.

Data: 4"x5" Graflex, with 16" Zeiss F: 5.6 Telephoto; 1/25th sec. at F:6.3 on Defender X F Pan, in M. Q. tank; Defender Veltura P.

■ Dr. Max Thorek has a finely developed story-telling talent that is abundantly evident in "Pianissimo Please". The pose and expression are so good that one can almost hear the orchestra playing. It is particularly regrettable therefore that the picture falls down because the details have not been given sufficient attention. The hands play an important part in the picture and are not presented to the best advantage. They are too much out of focus, considering their importance to the picture, and rather awkward in appearance. The baton does not look solid and is lost against the background. In spite of these faults the picture retains considerable strength. It catches our eye, holds our interest, and tells its story. We believe however that Dr. Thorek could make a better picture of this same subject.

Data: 8"x10" Studio camera with 18" Verito; 1 sec. at F:8 on Plenachrome, in Glycin; Enlarged negative developed in M. Q.; final print on Agfa paper.

■ The whole charm of Virna Haffer's "Three Towers" lies in the utter simplicity of the subject matter. Some will feel that the lonesome telegraph pole is a disturbing element in the composition because of its position in the corner of the picture space. We do not seriously object to it from that standpoint and believe the picture needs something in about that position as a sort of balance to the towers. However if the object could be something that did not establish scale the imagination would have much more freedom and "the towers" instead of being mere prosaic silos, and not very big ones at that, might assume infinite proportions and all kinds of weird, romantic or legendary connotations.

Data: 2¼"x3¼" R. B. Graflex; 6" Goerz Dagor; exposure through graduated filter on E. K. roll film; sky dodged in printing.

### Scoring For Club Trophy Cups

We are pleased to record an increase in the number of contributing clubs to fourteen for this month's competition. This is still considerably less than we had hoped for but we believe that the number will continue to grow. The Golden Gate Leica Club wins the honor of being the first of the miniature camera clubs



12



13



14

## ADVANCED MARCH



15

Second: "Lunch For One", F. Y. Sato, A.R.P.S.

Third: "Untamed", John Muller

Fourth: "Pianissimo Please", Dr. Max Thorek, F.R.P.S.

Fifth: "Three Towers", Virna Haffer

## ADVANCED COMPETITION

March 1934

### Contributors

Edward Alenius  
George Alsand  
Eric Barnes  
Karl A. Baumgaertel  
Evelyn Curtis  
M. K. Curtis  
Winn W. Davidson  
W. C. Day  
Joseph Engles  
Henry L. Gosdon

Virna Haffer  
Jack Hazlehurst  
Lionel Heymann  
J. K. Hodges  
Erica Insfourth  
Bede Irvin  
Roy X. Jones  
H. F. Kells  
Sorab J. Kharegat  
John Muller

Samuel Norstein  
John D. Olson  
R. D. Pestonji  
E. H. Pierson  
Herbert Ransome  
F. Y. Sato, A.R.P.S.  
Dr. Max Thorek, F.R.P.S.  
Leo Tiede  
George D. Vernon  
Frederick G. Weed



to enter the scoring column, and we hope that their example will stimulate other miniature clubs throughout the country to compete.

Individuals making points for their clubs are as follows: H. F. Kells, for the Camera Club of Ottawa; Dr. Max Thorek, for the Fort Dearborn Camera Club; Raymond B. Collderd, for the Golden Gate Leica Club; F. Y. Sato, for the Japanese Camera Club; Stanley R. Jordan, for the Photographic Society of San Francisco; John Muller, for the Pictorial Photographers of America; and Charles T. Norton, for the Schenectady Photographic Society.

### Contributing Clubs

California Camera Club	Richmond Camera Club
Camera Club of Ottawa	San Jose Camera Club
Fort Dearborn Camera Club	Schenectady Photographic Society
Golden Gate Leica Club	Telephone Camera Club of Manhattan
Japanese Camera Club	Univ. of Minn. Camera Club
Photographic Society of San Francisco	Utica Camera Club
Pictorial Photographers of America	Washington (D.C.) Photographic Soc.

### Standing of Clubs

Large Clubs Advanced Class	Large Clubs Amateur Class
Camera Club of Ottawa 9	Photographic Society, San Francisco 14
Pictorial Photographers of America 8	Schenectady Photographic Society 12
Fort Dearborn Camera Club 7	California Camera Club 3
California Camera Club 4	Golden Gate Leica Club 3
Small Clubs Advanced Class	Small Clubs Amateur Class
Japanese Camera Club 10	No Score

■ We have reason to know that Mr. Norton's "Four Lobster Floats" is a picture that grows on one. Twice during the preliminary eliminations of the judging this picture was almost thrown out. When the pictures were finally pared down to five and set on the wall in a tentative order of merit, this picture was in fifth place. Then it was moved to fourth, then to third and finally wound up in second place. It is interesting to note from this that pictures may be roughly grouped into two classes. The spectacular ones that make a strong first impression, but often fall off on close inspection, and the quiet ones that improve with familiarity. The low key in which this picture is printed is well suited to the material. It conveys an impression of late afternoon and explains the deserted fishing boat by suggesting that the work of the day is done. The title seems bad because it calls attention to an unimportant item in the picture which because of its high key has, of itself, more than enough ability to toot its own horn.

Data: Graflex with  $7\frac{1}{2}$ " 1-c Tessar; 1/35th sec. at F:11 on E. K. Portrait Pan. with K  $1\frac{1}{2}$  filter, on bright September day; developed in D76; print on Opal D in D-72 from paper negative.

■ Raymond B. Collderd has the distinction of being the first to win points for one of the numerous miniature camera clubs since our club competition started. His "Idle Nets" is well composed the foreground objects forming a fine frame for the view of fishing activity at the farther dock. The sky is a little bald and tends to pull the eye too strongly to the top of the picture. It would be a simple matter to dodge this in during printing.

Data: Leica D with 50 mm. Hektor; 1/100th sec. at F:6.3 on Agfa Fine Grain Plenachrome in Paraphenylenediamine-Glycin; print on Dassonville Charcoal Black in D-72.

■ Ray Atkeson has found some weirdly impressive material for his "Frozen Forest". The hooded figures and the snow packed trees together, seem almost too cold for this world. The figures are well placed but we believe that the total effect of the picture is improved by trimming from the left into the first of the taller trees.

Data: 9"x12" cm. Kawee; 1/50th sec. at F:11, on Defender Pan., with K 2 filter; Opal T print.

■ Ralph Rex deserves high praise for the fine photographic quality of "Paint Barrels". The large dark area formed by the ends of the four barrels in the foreground seems to constitute a hurdle over which the eye must jump, making it difficult for the eye to progress easily into the picture. For this reason we like the picture better trimmed from the bottom until about three-fourths of the height of the barrel on the right is eliminated. Try such a trimming and see if your eye does not slide into the picture much more readily.

Data: 9"x12" cm. Linhof, with Hugo Meyer Plasmatic; 1 sec. at F:32 on Ilford S.G. Pan. by bright sunlight, 2 P.M. July; developed in Glycin; Vitava W.2 print in Amidol.



## AMATEUR MARCH



Second: "Four Lobster Floats", Charles T. Norton

Third: "Idle Nets", Raymond B. Collerd

Fourth: "Frozen Forests", Ray Atkeson

Fifth: "Paint Barrels", Ralph Rex

## AMATEUR COMPETITION

March 1934

### Contributors

Milton H. Abram  
Ray M. Alford  
Ray Atkeson  
Joseph Barton  
F. M. Beckett  
H. C. Benedict  
Lawrence Berman  
Joseph Biel

Rolf H. Bruhn  
Roland Calder  
J. Cantrell  
R. L. Caples  
Edwin B. Carr  
Bernard J. Cassidy  
Raymond B. Collerd  
Clifton Cowee

A. M. Crawford  
June De Bella  
Emilie De Eds  
Dr. F. De Eds  
Wm. H. Foster  
John D. Fowsky  
Mortimer Friedman  
Walter V. Gajewski

(Continued on Page 147)

# Cinema Section

Edited by

William A. Palmer

## Fine Grain For Fine Results

The negative-positive method of film processing offers advantages for some work, but often it is not clearly understood just what these advantages are as compared with the more common reversal process. It is well known that the use of two films, one for the negative and one for the positive print, is a bit more expensive than the usual reversal system, so what are the justifications for paying the extra price?

It is possible to obtain a more positive control over the photographic quality of scenes when the negative-positive system is used and thus the system can be of great help in various special effects. To illustrate, it is sometimes very desirable to make a picture having the light values of the scenes predominantly in a high or a low key. The ordinary reversal process is adjusted to give the best possible results for all normal cine shooting and a picture photographed in a low key, that is photographed so that the dark values predominate, is apt to be compensated by the reversal processing equipment for normal density, giving weak washy-grey shadows. Similarly, the picture made in a high key will be compensated in reversal as though the intention was to have a scene with normal density and contrast. With the negative-positive system, the density and contrast can be controlled as in still photography. Of course, the reversal process could be altered to do just the same things, but the large laboratories cannot be expected to give every roll and every scene special treatment.

With the negative-positive process,

fades and lap dissolves become a very simple addition to any film after the camera work is complete. These after treatments of the film are known as chemical fades and are used extensively in professional technique.

If it is necessary to have several copies of a film made, the negative-positive method comes into its own as the cheapest means of production. Every copy or print from the negative, after the first one, results in a considerable saving as compared to the usual reversal duplicates. Furthermore, it is possible with the two film process to have the prints made in a number of different colors to fit the mood of the picture. The tinted stocks are no more expensive than the regular clear stock and their use often adds a great deal to the picture. Amber base can be used for warm sunlight effects or lighted interiors at night; blue can be used for very effective night scenes; green is just the thing for a water picture while pink is very attractive for festive pictures of all kinds.

Granted that these advantages are enough to offset any increase in the expense of the process, the negative-positive system must still achieve the very difficult feat of rivaling the present reversal system from the standpoint of fineness of grain and evenness of quality. It must be admitted that in many cases in the past the reversal film has had the upper hand, but the rivalry is now more intense. Fine grain developing has put things on a more even basis.

Aside from the development of a very

fine grained image, there must be careful attention to cleanliness, and the proper apparatus to handle the film while it is wet. A clean negative is absolutely essential, for any accumulation of dust or dirt on the film will appear as white spots in the finished print and therefore will be very conspicuous. The use of clean solutions and careful manipulation of the developing process in a clean, dust-free room will do more than anything to insure against disappointing results.

The apparatus used for handling the film must be designed to preclude any possibility of abrasion to the delicate emulsion and must be made of materials which will not effect the chemical action of the developer and hypo. In general, any metallic parts of the developing racks should be coated with chemical resisting paint. Brass parts will not cause trouble ordinarily, but immersion of the brass parts for a day or two in a used hypo bath, which is well loaded with silver, will give a silver plating to the parts and render them immune to any of the usual photographic solutions.

There are two factors which govern the fine grain negative: namely, the characteristics of the negative emulsion and the development of that emulsion. The first factor is one controlled by the manufacturer of the film and our only choice is in the selection of the negative material. It is remembered that the faster emulsions are liable to have more graininess than the slower ones and it is therefore obvious that we should select the slower emulsion, if the conditions of photography will permit. A special point with regard to the negative-positive process is that the negative material should be that made for the process. The ordinary reversal film developed as a negative is unsatisfactory. Several manufacturers supply the necessary material in both orthochromatic and panchromatic emulsions as well as normal and super speed sensitivities.

The second factor governing fine grain negatives, the development of the film, is a subject of great interest at the present time. A good many investigations have been made as to the most suitable developer for achieving a fine grained image



*Bland H. Casebolt*

**Enlarged from a 16mm. negative frame  
processed in p-diamine-glycin**

and the conclusion reached from most of the investigations is that paraphenylene-diamine is the one developing agent that stands above all others. Unfortunately, this agent has been limited because of the necessity for very full exposures and long development. But the recent work of Casebolt and others, as reported in recent issues of this magazine, shows that a combination of paraphenylene- diamine and glycin in a formula dubbed Sease No. 3 will give very excellent fine grained negatives with moderate development times. Mr. Casebolt has applied this formula to cine work with very excellent results and it is here recommended for a gallon of solution, a quantity used in most developing apparatus for 50 to 100 feet of 16mm film.

Water (150°F.) 1 gallon

Sodium Sulphite, 12 ounces

Paraphenylene - diamine, 1 ounce, 146 grains

Glycin, 392 grains

The chemicals should be mixed in the order given, preferably with distilled water. Normal development will be about 17 minutes at 68° F. The gallon of solution will process about five rolls (500 ft.) of sixteen millimeter film and the time of development should be increased a minute for every roll after the first. This developer requires an exposure of the negative of twice the normal.

A few suggestions for the manipulation

of cine film during development may be helpful to those who wish to try their own processing.

The film should be handled very carefully while being wound, emulsion side out, on the developing racks to avoid getting finger marks on the emulsion. The film can be guided by its edges in such a way that the emulsion surface at no time is touched. It should then be put into the developer and agitated gently as the development proceeds. This is very important, for the cine negative must be developed as evenly as possible. Very slight inequalities in density will be noticeable on the screen.

The development should be carried to a point that will give a negative of normal density and contrast unless some special effect is desired. The positive film upon which the negative is to be printed is made in one degree of contrast and thus the variation in contrast scale must be done in development. As the development proceeds the film will swell and lengthen and it should then be tightened upon its rack.

After the film is developed and rinsed it should be fixed in a fresh acid hypo bath which is at approximately the same temperature as the developer. Neither hypo or developer should exceed 70° F. or slight reticulation of the emulsion may result to offset all the benefits of fine grain developer.

When the film is thoroughly fixed, it should be washed in running water until there is no possibility of hypo remaining on the emulsion. If even a slight amount of hypo remains upon the film surface, the crystals of hypo, when the film is dry, will spoil the fine grain quality.

Then comes the drying of the film. This operation is of a great deal more importance than would first appear, for a cine negative can be quite ruined by improper drying conditions. The film should be transferred to a special drying rack, or at least another developing rack which is not wet, while it is passed through a clean pad of damp absorbent cotton. This serves to remove excess water from the film and also removes many solid dirt particles which would otherwise stay on the surface of the film. The cotton pad should be squeezed out frequently so that it may absorb water efficiently. The back of the film may then be wiped with a clean damp chamois. This can be done by loosening one end of the film on the rack and following the film with the chamois along its length as the rack is turned. At the end of these two operations, swabbing both sides of the film with the cotton pad and wiping the back with a chamois, the film ought to have no water accumulated in the form of drops. If there are still drops of water, they should be removed with cotton. The remainder of the drying process then can take place in a clean room with a normal temperature. Heat should not be used to accelerate drying, but a circulation of air, if dust-free, is helpful. As the film dries, it will contract and it must then be loosened to prevent it from becoming stretched.

After the negative is completely dry it should be handled and stored with extreme care to guard against that worst enemy of the negative positive process,—dirt.

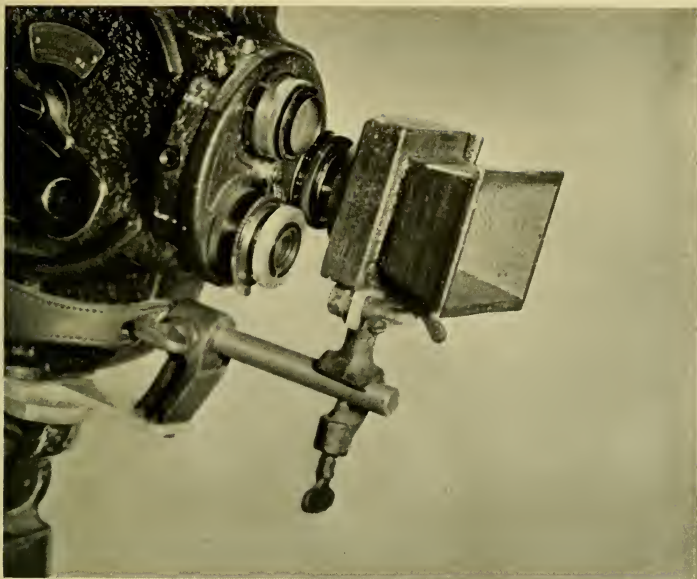
The Dunning Process Co., 932 No. La Brea Ave., Hollywood, Calif., is offering fine grain processing of 16mm. negative stock.

## A Mounting For Gadgets

Those of us who are fortunate enough to have several lenses for our cine cameras often have difficulty in arranging our various lens attachments so that they may be used conveniently. Either we have no

standard means of affixing the sun shade-matte box on all the various lenses without any number of fancy adaptors or we find it impossible to use the sun shade and a filter at the same time or we get





our many lens gadgets attached and then find it necessary to remove them to see to set the diaphragm. A solution to some of these annoyances is found in the mounting of the various accessories on a support which is not attached to the lens barrel.

The accompanying photograph shows a suggested method of mounting a combined sun shade and filter holder upon a horizontal rod which extends outward from the tripod. The sun shade is fastened to the rod by a ring stand clamp of the type used in chemical laboratories. With this arrangement the sun shade, and in this the filter holder also, may be readily set in the proper position for the different lenses. The one set of filters, which are standard two inch squares, serves for all lenses and the sun shade may be quickly turned out of the way when it is desired to see the diaphragm markings. All in all, the method of mounting is a bit more convenient than providing special means for affixing the accessories to each lens barrel.

A variation of this method of mounting, which would be indicated when the camera is to be hand-held, would be to fasten the supporting rod directly to the camera case by a socket which could be permanently screwed in place. The rod could be attached to or released from this socket by a set screw in a moment.

**Question:**

What is the proper use of the new green X filters?

**Answer:**

The green or X series of filters was introduced as a direct result of the newer high red sensitive panchromatic emulsions. When the usual yellow filters are used with this type of film, often the reds and yellows record too light and there is too much contrast in landscape. The X filters cut down on the red end of the spectrum as well as the blue and violet and thus retain a better balance of color rendering. They are especially useful in scenes containing green foliage to tone down the contrast and still record the sky and clouds naturally.

# Correspondence

## Kudos?

Dear Sir:

Mr. William Rittase in the February issue of **Camera Craft** offers some very excellent suggestions about salons. His statements are very fair and no doubt much good will come as a result.

I am sorry and surprised, however, that Mr. Rittase is still possessed with the erroneous idea that the new Photographic Society of America is conceived as a degree issuing organization for several of us, both in personal interview and by correspondence (duplicates of which are in my files) have repeatedly tried to explain that such is in no wise the truth.

It certainly could not be that after all our efforts to convince Mr. Rittase to the contrary, that he persists in "hollering" about the P.S.A. just to be perverse or because he loves the sound of his own yokel, for he is too fine a pictorialist for that.

I am glad to discover the sort of undesirable person I am along with many other excellent gentlemen who have one of those "undemocratic" and "snobbish" foreign degrees. Certainly there could be nothing snobbish about a degree conferred upon me. . . .

Incidentally the proposed constitution and bylaws of the P.S.A. will be forwarded this month to those who have expressed an interest for opinions and discussions. We only hope that Mr. Rittase has better luck reading his copy than he seems to have had with our correspondence.

very truly

Hillary G. Bailey, F.R.P.S.

Philadelphia Salon

My dear Mr. Young:

May I call to your attention Mr. Rittase's article in the February issue of **Camera Craft**? I wish to call your particular attention to the first two paragraphs on page 60. I do not know whether you know or not but in Philadelphia we have no single photographic organization that is willing to shoulder the responsibility of sponsoring an International salon,

much less finance one. You see we have no angels here. Before going any farther into details let me mention the basic facts of the Second Philadelphia Salon.

The Pennsylvania Museum of Art sponsored, financed and made available show rooms for the salon. They have a competent staff that was detailed to the duties of handling the prints, hang them, etc., etc., having had previous experience in the matter of handling prints as this was not their first venture. From the above facts would you personally say that the committee passed the buck on to the museum? The jury did not have to be apologized to because of the above, but, because **one** member of the museum staff made himself very unpleasant to the jury. In spite of being so willing to "pass the buck" (as Mr. Rittase claims) the committee was responsible for the apology tendered to the jury for this discourtesy.

Let me also mention at this time that the jury viewed every one of the 2000 prints that were submitted and that 199 were selected to hang. Now then, there were additional prints hung by the museum on its own initiative in a separate room and with the jury's permission provided they would mention the fact. That was done and if you have seen a catalog you will probably have noticed that there was an additional double page inserted with an explanation and everyone **was not dissatisfied** that knew the particulars, and I believe that everyone who was interested knew the particulars.

To me it appears to be just a matter of personal grievance against a number of fine men on the committee and not one that should have been broadcasted Internationally, with the result that the reputation of some of the finest members of the profession has been slightly marred. It is my wish that you make reparation for the damage done by the publication of such untruthful statements. It is to be regretted that Mr. Rittase did not get the correct information on the Philadelphia Salon before referring to it in his article and not just repeat ampli-

fied hearsay which probably was scattered by a few "bunches of sour grapes". Let me add at this time that Mr. Rittase has so far not been in favor of a Philadelphia Salon, and why shouldn't a city of two million population and containing so many fine photographers have a salon, even if it is sponsored by a museum.

I have always been under the impression that a publication always investigated before publishing any article which dealt with criticism.

I sincerely hope that you will accept the above explanations in good faith as I do not feel that such commentations should be allowed to stand without reparations being made.

Sincerely yours,

Alfred A. De'Lardi, F.R.P.S.

**Camera Craft** did not read and we do not believe Mr. Rittase intended the paragraph in question as criticism of any individual, but rather as an instance of lack of organization and understanding between the Salon Committee on one hand and Museum officials on the other.

**Camera Craft** further believes that the progress of photography has often been hindered by the fact that dissatisfactions and differences of opinion are seldom brought out into the open, with the result that they continue to smolder through mutual misunderstanding. It is hoped that this department may act as a clearing house when controversy arises. Correspondents are urged to state their case frankly and honestly, but without resort to personalities.—Ed.

About the P.S.A.

Dear Sir:

There seems to be some misunderstanding about the **Photographic Society of America**. I appreciate the opportunity to discuss it in the columns of **Camera Craft**. As one of the leaders in the movement, and one of the **active members** of the Organization Committee, I feel qualified to speak.

Broadly speaking, it is the aim of the Organizing Committee to create an American society to promote all branches of the science and art of photography, through individual memberships and associated clubs. We plan to do as much for American photography as the R.P.S. does

for Great Britain, making such **changes and alterations as will best serve American requirements**.

The Organizing Committee has been in existence for a little more than a year. While much has been accomplished, a great deal remains to be done. It is no mean task to create such a society, and to avoid all the pitfalls and dangers that are apt to be encountered. Add to this the fact that members of the committee are carrying on the work in their own, and therefore spare time; and the fact that these members are scattered from coast to coast; and it will readily be seen that much time is consumed in completing the innumerable organization details.

On a number of occasions during the past year, clubs throughout the United States (as well as their members) were invited and urged to express their thoughts, and offer recommendations or suggestions to the Organizing Committee. They were further urged to write the Chairmen of the sub-committees, about their special part of the then proposed P.S.A. As Editor of the Bulletin of the Associated Camera Clubs of America, I included a list of these sub-committee chairmen, with their addresses. My name was included as Chairman of the Committee on Individual Membership Benefits and Privileges.

Mr. Wm. M. Rittase, author of the letter published in the February **Camera Craft**, never took the pains to write to me what he thought the new society should offer to individual members. He never asked me what the committee was planning to do in the way of offering "degrees",—if any. I have requested suggestions, and will welcome some from him. He seems to have some. And I repeat my request. I shall be delighted to hear from anyone, about anything that may concern the new **PHOTOGRAPHIC SOCIETY OF AMERICA**.

As for urging **any** camera club or photographic society to withdraw from the organization,—how ridiculous! The details for the individual members benefits and privileges have not as yet been completed—there is ample time to make revisions and changes. The committee is eager to consider all sides of the problem.

Having a camera club withdraw at this time, because of certain provisions that **MIGHT** be adopted, is like canceling a subscription to **Camera Craft** because you **MIGHT** publish an article that the subscriber will object to. Why not find out first whether the article is to be published?

The members of the Associated Camera Clubs of America voted, by a very large majority, to change the name of the organization on January 1, 1934, to the **PHOTOGRAPHIC SOCIETY OF AMERICA**. This change in name, together with approval of the action of the Organizing Committee, and other matters, were included in a resolution submitted to the member clubs in the October 1933 bulletin of the Association.

Thus the **PHOTOGRAPHIC SOCIETY OF AMERICA** is a reality. The Organizing Committee, and its sub-committees, are proceeding with their task. They welcome assistance in any form. You, who have complaints to make, now have your opportunity.

Write to the General Chairman, Louis F. Bucher, 683 High Street, Newark, N.J., or to the undersigned at 11463 Copeland Street, Lynwood, California.

Thank you!

Yours, in the spirit of co-operation,

R. L. van Oosting.

### A Question on Film Speeds

Dear Sir:

A perusal of Mr. Bland H. Casebolt's article "Print quality and fine grain development", page No. 13 of my copy of your Magazine of this month, has on page No. 14 some extraordinary figures as to speed of films.

The statement to which I would call attention is that dealing with the speed of "Perutz Perseno" films. Being unable to purchase these splendid films here, I imported from Germany a supply for my own use. Now the directions enclosed with each film are in German and I quote the opening statement of same:

"Perseno-Film besitzt eine aufs höchste gestigerte "Allgemein - Empfindlichkeit — 23 Scheiner".

Now Twenty-three Scheiner degrees are as nearly as possible equal to 1300 H.&D. Notwithstanding the fact that the makers

of the film give the speed as 23 degrees Scheiner, Mr. Casebolt gives the rating of the film, as it appears on page No. 14 as 370 H.&D.

I would be interested in learning from whence this gentleman derives his figures.

"Camera Craft" is a splendid magazine.

Yours very truly,

W. H. Clarke-Carriere.

### Mr. Casebolt's Reply

Dear Sir:

It is with pleasure that I explain the method whereby I obtain the values given in the speed table on page 14 of the January issue of **Camera Craft**. When the speed table was written, I was well aware that I was opening the door for some misunderstanding, hence, the 3rd paragraph on page 13, line 5, "Tests with the sector wheel and densitometer show that a little over twice as much exposure—". In other words, this table is only to be used with the "Sease No. 3" developer!

The speed of Perseno film as given by the manufacturer is 23° Scheiner (1240 H.&D.), E. Leitz of New York rate it at 21°, while the Weston Electrical Instrument Co. give it a rating of 22°. My own tests have been very close to that of Weston, so I use 22° Scheiner or 972 H.&D. One half of 972 is 486, the nearest Scheiner degree is 19, then by dropping one degree to get the little over double exposure, gives us 18°S., which corresponds to about 370 H.&D.

You will notice that three different laboratories (and good ones too) get three different ratings for the same film. This goes to show that H.&D. numbers can be taken as guide only and not a fact. The large manufacturers of film in the United States decline to give out H.&D. numbers for their sensitive materials, but will give comparative figures only.

But as long as we have exposure meters that have H.&D. or Scheiner degrees on them, then we will have to have tables published. It would be a blessing to the whole photographic clan to have a standard method of comparing film speeds but at the present time there is little hope for the near future.

Very truly yours,

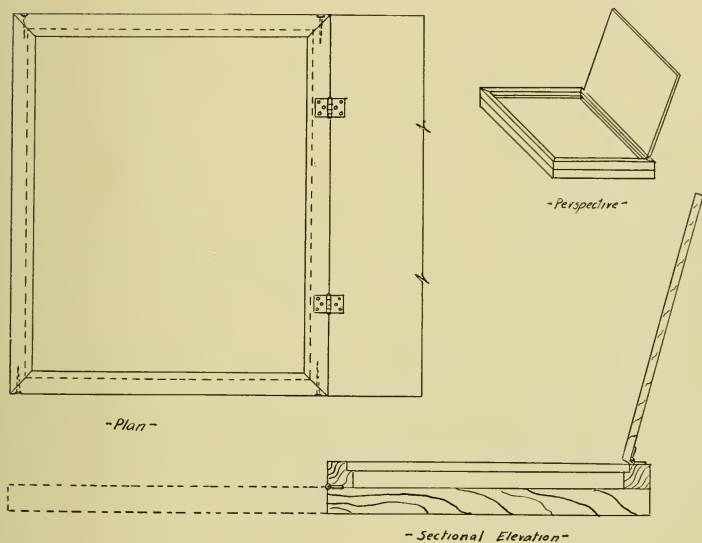
Bland H. Casebolt.

CAMERA CRAFT

# The Amateur and His Troubles

## Hi-Speed Printing Frame

D. E. Jack



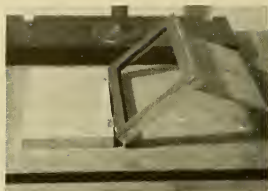
A very fast, a very simple and a very cheap printing frame is made as shown in sketch and photographs.

Any cabinet shop and most lumber mills will make up a supply of the required moulding by taking 1"x1" finished soft pine (about  $\frac{3}{4}$ " square) and running over a table saw to cut out one corner  $\frac{1}{8}$ "x $\frac{1}{4}$ " deep. Twelve feet recently cost me 25c and is sufficient for several printing frames of various sizes. Mitre this moulding as in making a picture frame, so that the desired size sheet of projection paper slips easily into the frame. A piece of  $\frac{1}{4}$ " ply wood (often available in the scrap box at the mill) is cut a little smaller

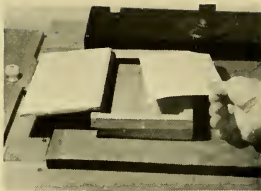
than the paper and hinged to the frame. Cover the inner face of this with white paper. This entire frame is then hinged to a piece of 1" finished pine the same size as overall dimensions of the frame. This latter piece can then be clamped to the desk under the enlarger. However, I find it most convenient to mount on a bread or drawing board so that this acts as an anchor for holding frame in desired position. By using screws or small nails, this same board may be used for all the frames, by merely removing one and replacing it with another.

In addition to being cheap, this type printing frame has a number of very ex-

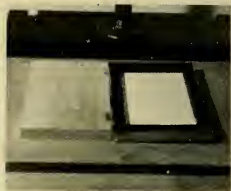




*Frame fully open*



*Inserting paper*



*Ready for printing*

cellent advantages. First, for the amateur, it is the fastest I have ever seen, particularly when making a large number of pictures from one negative, such as Christmas cards. By actual count I was able to remove paper from frame and replace with an unexposed one ready for exposure in two seconds. Second, the white facing of the lid allows focusing and composing your picture without using the orange filter over the lens because when the unexposed paper is placed in the frame, it must come back to exactly the same position as your original arrangement. Third, it is unexcelled for the user of Leica, Contax, Memo or other 35 MM film cameras. Upon return from a trip with 50 to 100 record shots, all of which I usually wish to place in my album, I set up so as to enlarge to  $3\frac{7}{8} \times 5\frac{1}{2}$ ". (The size  $3\frac{7}{8} \times 5\frac{1}{2}$ " was se-

lected as it is obtainable in the various portrait papers and its ratio of width to length is almost exactly that of two frames on 35 MM film.) focusing on the frame to just get in all the negative. Then by merely sliding film roll from one negative to another, I am able to make this size enlargement almost as rapidly as a contact print. The larger pictures are considerably more desirable to have and a great deal easier to inspect for possible pictures of greater enlargement.

#### Wrinkle

This takes the joy out of life but is nevertheless true. If you desire real sharp pictures do not smoke in the darkroom while enlarging. Conversely, if you desire an extremely delicate diffusing screen, just blow a little smoke between lens and paper.

## Club Notes

### Forthcoming Exhibitions

- **San Diego, 4th International Salon of Photography.** Address, Salon Committee, Camera Enthusiasts, 4225 Arden Way, San Diego, Calif. Entry fee \$1.00, limit 4 prints, closing date March 12, 1934.
- **Seventh International Photographic Salon of Japan.** Address, The Asahi Shimbun, Tokyo, Japan. Closing date March 15, 1934.
- **Second Annual Princeton Photographic Salon.** Address F. Quellmalz, Jr., 132 1901 Hall, Princeton, N.J. Entry fee \$1.00, limit 4 prints, closing date April 18, 1934.
- **Fifth Brussels International Salon of Photography.** Address, M. M. Devaivre, 152 rue Markelbach, Brussels, Belgium. Entry fee 5 Belgas, limit 6 prints, closing date March 15, 1934. Packages must not exceed 18" in either dimension.
- **First Annual National Collegiate Salon.** (Limited to persons actively connected with Colleges). Address the University of Wisconsin Camera Club, Wisconsin Union, Madison, Wis. Entry fee \$.75, limit of three prints, closing date March 16th.

■ **19th Annual Hammersmith Hampshire House Photographic Society** Exhibition of Pictorial Photography. Address J. Ainger Hall, Sec., 10 Kitson Road, London S. W. 13, England. No entry fee, but Money Order must be sent for return postage. Limit of six prints, closing date March 22, 1934.

■ **13th Brussels International Salon.** Address Ernest Hofmann, Sec. 154, Rue Brogniez, Brussels, Belgium. Entry fee 5 Belga, limit of four prints, closing date April 1, 1934.

■ **First International Photographic Exhibition at Ljubljana.** Address Fotoklub Ljubljana, Poljanski nasip 16, Ljubljana, Yugoslavia. Closing date April 20, 1934.

■ **2nd Detroit International Industrial Salon.** Address Salon Secretary, Detroit Institute of Arts, Detroit, Mich. Closing date May 16th.

■ **Third Detroit Salon of Pictorial Photography.** Address Salon Secretary, Detroit Institute of Arts, Detroit, Mich. Closing date May 16th.

■ **First Salon of Pure Photography.** Address Willard Van Dyke, 683 Brockhurst St., Oakland, Calif. No entry fee, mounts must not exceed 18" in width, closing date June 15, 1934.

■ **13th Annual All American Photographic Salon.** Address James S. Lawshe, Director, 604 Standard Oil Bldg., Los Angeles, Calif. Entry fee \$1.00, limit four prints, closing date June 2, 1934.

■ **The Victorian International Salon of Photography.** Address C. Stuart Tompkins, A.R.P.S. Sec., Junction, Camberwell, E.6, Melbourne, Victoria, Australia. Entry fee 5 shillings, limit four prints, closing date Sept. 18th 1934. Packages for entry into Australia must not exceed 16"x16" or 4½ lbs.

■ **International Exhibit of Professional Photography.** Address G. E. Newton, Secretary, Professional Photographers Association of Victoria, 243 Collins St., Melbourne, Victoria, Australia. Entry fee 5 shillings, remit as money order payable to G. E. Newton, Post Office, Melbourne, entries accepted from professional photographers only, limit four prints, closing date Sept. 18, 1934, sizes as above.

### **Miniature Camera Club of New York**

As far removed as we are from the seat of their activities we have been much impressed with the enthusiasm of the members of the above mentioned club. Meetings are held twice a month and each program is interesting and instructive. The club boasts a number of well known photographic names on its roster among which are Miss Sophie Lauffer, and Mr. William A. Alcock, two tried and true friends of all serious photographic endeavor.

### **Club Visits Club**

We are happy to note that the practice of one club visiting the meetings of another is becoming more and more common. Surely the results of such a spreading of photographic acquaintance are all to the good. The Newark Camera Club were hosts to The Miniature Camera Club of New York on Dec. 11th, and, if we may be excused for spilling the beans in advance, we may report that the Photographic Society of San Francisco will entertain the San Jose Camera Club at their February Meeting.

### **Telephone Camera Club of Manhattan**

Those who are interested in seeing how

an interesting report of an inter-club Salon should be written are advised to consult "The Filter" for December 4th, which is published by the above mentioned club. Four affiliated Telephone Camera Clubs submitted a total of 202 prints to the show of which 102 were accepted for hanging. The jury consisted of Mr. Ira W. Martin, Mr. H. H. Costain, and Mr. Hi Williams.

### **Judging Club Competitions**

We recently had the pleasure of helping to judge an interesting group of portraits which were sent to this office by the Fresno Camera Club. This group comprised the clubs monthly competition. Since the prints arrived just as **Camera Craft's** own monthly competition was being judged the same jury, consisting of Mr. P. Douglas Anderson, A.R.P.S., Mr. Otto C. Schulte, and the editor of this magazine, was used in judging the Fresno club's prints as well. It occurs to us that other clubs somewhat removed from the large centers of population may also have difficulty in collecting a suitable jury to judge their club competitions. This difficulty arises from the fact that in the smaller communities the men which would ordinarily act as jurors, are usually men-

bers of the local club and in all likelihood are taking part in the clubs competition.

**Camera Craft** will be pleased to arrange for a competent jury to judge prints for any club that desires to send their prints to our offices for that purpose.

#### **Chicago Camera Club School of Photography**

The first session of the Spring Term of the Chicago Camera Club's School of Photography for the amateur will be held on Tuesday evening, April 10th at 7:30 o'clock and will continue every Tuesday evening thereafter until June 12th.

The course proved so successful last year that the committee feels it imperative to repeat it at this time. Those desiring further information should communicate with the Chicago Camera Club, 137 No. Wabash Ave., Chicago, Ill.

#### **Novel Idea for Club Competitions**

The Washington (D.C.) Leica Club have discovered a unique solution of the award problem for their club print competitions. The club charges an entry fee of \$.15 per print and then awards 40% of the proceeds from these entry fees to the first prize winner and 25% to the second prize winner. No limit is placed on the number of prints that may be entered, and the entry fee does not seem to cut down the number of entries due to the fact that the more prints one enters the greater is the award received.

#### **California Camera Club**

The California Camera Club commemorated the exhibition of a most interesting one man show by William Mortensen by holding an afternoon tea in the club rooms on Jan. 20th. Judging from the crowd we would say that the entire photographic population of San Francisco and the East Bay cities were present. Not only that but we met several from cities as far away as Stockton. Apparently there was universal appreciation of the fact that one can hardly afford to miss an opportunity to view a representative collection of prints by one of the world's leading photographers. Coffee, cake, and sandwiches there were in abundance, made doubly tasty by the hospitality of the club members and the fine spirit of

photographic fellowship which pervaded the whole afternoon.

#### **First Salon of Pure Photography**

Here is a bit of good news for those interested in Pure Photography: Miss Mary Jeannette Edwards and Mr. Willard Van Dyke, directors of the gallery at "683 Brockhurst", Oakland, California, believe that an opportunity should be afforded those working in Pure Photography to exhibit their work. To that end they announce the First Salon of Pure Photography which will be hung in the above mentioned gallery during July 1934. Prints must be the result of unmanipulated negatives, and the various controlled printing processes such as Bromoil, Oil, Gum, Fresson, paper negatives, etc., are barred. White or cream-colored mounts may be used, mounts not to exceed 18" in width. Prints should be addressed to Mr. Willard Van Dyke, 683 Brockhurst St., Oakland, Calif., and must arrive not later than June 15, 1934. The jury will consist of Mr. Edward Weston, Mr. Ansel Adams, and Mr. Willard Van Dyke.

#### **Detroit Camera Club**

Camera Club meetings do not always have to be serious affairs. The meetings of the Detroit Camera Club usually are.

But on the occasion of the last meeting, three of our oldest members chose to announce their engagements to be married.

What has that to do with photography, you ask? Just this—Wilbur Taylor planned to tell the boys that John Lauder was engaged to be married. He did so and presented him with a "portrait" entitled "T. John making a backhand catch of a pie plate". The photograph was a well known one of a discus thrower with Mr. Lauder's face very skillfully printed in.

In rebuttal as it were, Norman E. Dewes announced that Wilbur Taylor and Curt Ballard were also going to be married—and presented to the club a photo of Wilbur's girl, enlarged and distorted beyond recognition by the recently expounded Mortensen method. Several good laughs were had by all.

An exhibition of prints by Lionel Berryhill was reviewed.

## Amateur Contributors

(Continued from Page 135)

Karl George  
Floyd R. Getsinger  
Kingsley W. Given  
Harold Gretzner  
Viola Hawke  
Johanna E. Heim  
Walter J. Herz  
Eulita D. Hogel  
Julius Homoly  
A. G. Johnson  
H. R. Johnson  
Fred R. Jolly  
Stanley R. Jordan  
Roy H. Kamm  
Ernest W. Kestner  
Harry C. Lassen  
Albert R. Lindgren  
M. Margossian  
Delina Margot  
John R. Marshall

Dwight S. McDaniel  
W. J. McCune  
J. W. McManigal  
Richard H. Mercer  
Morris D. Milam  
Walter F. Myers  
C. F. Nix  
F. A. Northrup  
Charles T. Norton  
Jack Norworth  
Edward Paloniemi  
F. Owen Pearce  
Glenn R. Peterson  
John Pohland  
Mrs. Harrison M. Pridham  
Frank X. Reilly  
Ralph Rex  
F. L. Rogers  
H. W. Rogers  
J. W. Schuler

Alajos Schuszler  
George Scott, Jr.  
N. P. Smith  
Owen M. Smith  
Allen Sweet  
H. E. Taufest  
Lee Siau Tong  
John C. Tourtellot  
W. F. Wedel  
Guy K. Weeden  
D. B. Wentz, Jr.  
Gordon E. Wilburth  
L. A. Wilke  
Chas. Willey  
Wm. E. Wing  
Walter E. Woestman  
Robert F. Wood  
H. B. Woodling  
R. L. Zabel

# Notes and Comments

## Inventory Sale

Burke & James have prepared a large size 24 page booklet listing hundreds of real bargains which they are offering in conjunction with their 36th Annual Inventory Sale. Almost anything you may need in the way of equipment is to be had at a substantially reduced price. Write to Burke & James, 223 West Madison St., Chicago, Ill., promptly for copy of this bargain list.

## Booklet on Lighting Equipment

Photographers are finding it increasingly difficult to select the best available lighting equipment due to the confusing variety of models which are now on the market. Realizing this Willoughby's 110 W. 32nd St., New York, N. Y., have prepared a booklet which is intended to present the full story on available equipment

in one pamphlet thus making it much easier to make an intelligent choice. Write for your copy today.

## Helpful Leica Booklet

Leica users who are pondering the problem of what lenses they desire as equipment on their cameras will find much useful information in a new booklet recently published by E. Leitz, Inc., 60 E. 10th St., New York, N.Y. This book is written in question and answer style and goes very completely into the matter of what lenses are best for each type of photography. Even if you are not contemplating the purchase of lenses the booklet will give you valuable information. Write for your free copy today.

## Weston Exposure Meter

We have been much impressed by the

number of prominent photographers that have taken the trouble to call our attention, in letters, to the excellence of the Weston exposure meter. Such unsolicited praise is the surest proof of the fine qualities embodied in this meter and we are happy to pass this testimony along to the readers of this magazine.

#### **Photo-Lab "23"**

The Photo-Lab Co., 2522 Warren Ave., Cheyenne, Wyo., are now offering a most efficient reducer for prints and lantern slides under the above title. Any degree of local or all over reduction may be obtained with no danger of staining. It is most useful for improving the contrast of over exposed prints, removing dark parts in backgrounds, obtaining a vignette effect after development, etc. Also works on negatives. Complete instructions and suggested uses accompany each package. Write to the above address for full information.

#### **Goofy Picture Contest**

Ballyhoo magazine announces a snapshot contest for the goofiest photographs, which will begin in March. Prizes are as follows: 1st \$50.00, 2nd \$25.00, 3rd \$15.00, 4th \$10.00, and 25 prizes of \$5.00 each. Rules are given below:

1. Photos will be judged entirely on their Goofy quantities. The crazier they are the better.
2. Photos may be on any subject and contain any number of people.
3. People in the photos may be in costume or not. No "nudes" will be considered.
4. Any number of photos may be submitted, but the following "Permission to print this photo is hereby given to Ballyhoo" must be printed on the back of each photo and signed by each person in the photo.
5. No photos will be returned unless accompanied by return postage.
6. Send all photos to Ballyhoo Snapshot Editor, 149 Madison Ave., New York, N.Y.
7. To compete for the first months prizes photos must arrive not later than March 20th. Winners will appear in June issue.

#### **New DeVry 16mm. Sound Projector**

Perhaps the most noticeable development in the movie field today is the tremendous increase in the use of portable sound projectors in business, in churches, in schools, and in the home. The wonderful effectiveness of sound projection in widely different fields is only beginning to be appreciated. The new easily portable and highly efficient DeVry projector is expected to impart additional impetus to this development. This equipment established a new standard of light weight and compact portability. The complete system being incorporated in two small suitcases whose total weight is but 55 lbs. The system will deliver efficient sound projection in a small office or home or for audiences as large as 2500 in a large auditorium. A public address system may be simply hooked up with the amplifier. Write to Phil Lasher, Ltd., 254 Sutter St., San Francisco, Calif., for full details.

#### **The 1934 Winona School**

Annually it has been the practice of The Photographers' Association of America to conduct courses in photography at the Daguerre Memorial Institute, its property at Winona Lake, Ind., and these courses have become recognized as unquestionably the most thorough and complete available in the country in a condensed, economical form. To the practicing professional, they offer an opportunity to "brush up" his knowledge and ability, a "post-graduate course" as it were; to the employee with a reasonable amount of experience in photography, they make it possible to become a thoroughly competent photographer.

There will be two courses this year. The commercial course opens July 16 and closes July 28, the tuition fee being \$40.00. The portrait course opens August 6 and closes August 31, and the tuition fee is \$65.00. Students may take either or both courses at their discretion. The courses are not limited to members of the Association, but are open to all. William H. Towles, Washington, D. C., is director of the School, assisted by a competent staff. The building is completely equipped for



instruction in camera work, darkroom work, printing and projection, retouching and coloring. A series of lectures on the business end of the studio are also included.

Attendance in both courses is limited in order that every student may be assured of personal instruction and attention. Reservations have been coming in to the Association since early February and those who desire to take either or both courses this year should write at once for further information to the Executive Manager, P.A. of A., 501-2 Caxton Bldg., Cleveland, Ohio.

**Photographic Dealers Code**

A Preliminary Hearing on the Photographic Dealers Code covering their sales to photo finishers, commercial and professional photographers, photo engravers, institutional, commercial and/or industrial users was held in Washington on January 25th. This Code is sponsored by the National Photographic Dealers Association, 57 East 9th St., New York City, to whom you can apply for further information.

**New Filmo 121**

Bell & Howell Company makes the important announcement of a 16 mm. magazine-loading motion picture camera, light in weight, low in price, and rectangular in shape—entirely different in appearance from any camera previously made by this company, but embodying the traditional Bell & Howell features of fine design and rugged, precise construction. This new camera has been christened Filmo Model 121.

The magazine-loading features makes for instantaneous loading. You just slide in a 50-foot film magazine, close the camera door, and the camera is loaded.

Filmo 121 is only 2¼x3½x5¼ inches in size and weighs about two pounds. It is beautiful in appearance with its rich dark brown leatheroid covering and polished plated fittings.

There are two viewfinders. One is a direct-sightfinder (spyglass type) affording a large and brilliant field. The other is a waist level finder of the reflecting type used on still cameras.

Two speeds, 16 and 24, are provided



Filmo 121

for, as are single frame exposures. A downward pressure on the starting button puts the camera into operation at 16 or 24 speed, according to the setting of the speed control lever. An upward movement of the starting button exposes a single frame. This provision opens up many interesting possibilities in animation work.

A first quality Cooke 20 mm. F 3.5 universal focus lens is standard equipment. However, a Cooke 1-inch F 1.8 lens, suitable for both black and white or Kodacolor movies, can be supplied, either with or without Kodacolor filter.

An exposure chart covering all outdoor light conditions, seasons, subjects, and hours of the day is built into the new camera's side. There is an accurate film footage dial and a permanently attached, folding winding key.

The shutter is of a unique and distinctive type with oscillating action—motion picture's closest approach to the focal plane shutter of a still camera. This affords an unusual sharpness of image. The exposure time at normal speed is approximately one thirty-fourth of a second.

The price is also a feature—\$67.50 with 20 mm. F 3.5 universal focus lens. The case is \$7.50 extra.

# Classified Advertisements

Items advertised in these columns may be purchased C.O.D. subject to examination and C.O.D. subject to ten days free trial if sent by express. If in doubt, safeguard yourself.

## OUTFITS FOR SALE

◆V. P. Korelle (1½x2½); Schneider f:2.9 lens, new Compur Shutter; A-1 condition, \$19.00. F. W. Ambos, Box 613, Denver, Colo.

◆Direct-Positive Photostrip equipment for sale. Attractive cabinet (collapsible); Camera; good lens and shutter; lights; enlarger; accessories. Complete, ready to go. \$150.00 cash. Owner now operating in San Francisco Dept. Store. McKibbin, 347 Alcatraz Ave., Oakland, Calif.

◆Leica Camera, f:3.5 lens, model A, Special leather case. Bargain, like new. W. L. Newmeyer, 140 Geary St., San Francisco, Calif. Phone KEarny 1518.

◆9x12cm. Carl Zeiss Miroflex fitted with 6" Zeiss f:4.5 lens, 6 plate holders, F.P. adapter, and leather case. \$85.00. Thomas L. Wright, 909 N. Stanley, Hollywood, Calif.

◆Enlarger 5x7 or smaller, Ellwood nearly new \$22. F:6.3 anastigmat lens in shutter for same \$7, new. 5x7 Eastman D View, 6 plate or film holders, tripod, and case, no lens, fine condition, \$25. J. S. Anderson, Willow City, N. D.

◆3 Kodak Developing tanks, Printers, Enlarger, No. 8 Portrait Camera, 8x10 camera, 2 Goerz Dagor lenses, 16½ in. Heliar, 14½ in. Verito. Multiple back. Arc light, Edge light. Lots of photo equipment. M. J. Stiles, 1461 Logan St., Denver, Colo.

◆Universal Movie Camera, 400 ft. professional model, Universal tripod, complete, splendid condition. B&L f:3.5 lens, hood \$100.00. Camera only \$65.00. Tripod only \$40.00. Quentin Colburn, Box 43, Keene, Tex.

◆5x7 Home Portrait Graflex with f:4.5, 10" Zeiss lens, cut film magazine, Zeiss filter, sun shade, fiber case, all like new, over four hundred dollars worth for \$98.50. William Jacobs, 572 Crestline Drive, Los Angeles, Calif.

**BEATTIE'S LIGHTING DIAGRAMS AND DIRECTIONS.** Three pages fundamentals, 13 pages floor-plan diagrams and directions. Includes plain lightings; lighting to avoid retouching; line, back and three-quarter lightings; direct spotlighting (theatrical); effect lighting; semi-silhouettes and silhouettes. Adapted to all types lighting equipment. Mailed postpaid for two dollar bills. Robert Beattie, 913 N. Sycamore, Hollywood, Calif.

## LEICA OWNERS

New, portable copying device .....\$9.75  
Send for pamphlet describing it. Trade in your Leica for a Model F with the new Summar f2 lens. Liberal allowance.

**MINIATURE CAMERA SHOP**  
1600 Post St., San Francisco

## LEICA-USERS

Send for prices and description of accessories made by: SAC, 1600 California Street, San Francisco, California.

## POSITIONS WANTED

◆By young, ambitious, cultured, photographic artist. Graduate of art school. Former photo-lite artist for Warner Bros. and United Artist films. Expert individual attention on commercial or studio work. Julia Bierbaum, 828 Quintara St., San Francisco, Calif. Phone OVerland 3072.

◆By an all around man. 12 years experience. Will accept a summer position. Will go anywhere on the Pacific Coast. Salary reasonable. Homer S. Wyette, 1143 S. Catalina St., Los Angeles, Calif.

◆Young man, everything but retouching, finest of references, desires local connection where future depends entirely on own efforts. Chas. E. Lamphere, c/o Camera Craft, 703 Market St., San Francisco, Calif.

## OUTFITS WANTED

◆New condition 8¼ or 8½ inch, f:6.8 Anastigmat lens in shutter. Describe fully. Best offer accepted. Earle's Studio, La Porte, Ind.

## FOR SALE OR EXCHANGE

◆5x7 Press Graflex, with or without 8½ inch B&L Zeiss Tessar; sole leather case; positively new condition. Will sell or trade. Need 8x10 or 5x7 view; 9½ or 10 inch 4.5 portrait lens; Ventile's. Frank Lee, 800 N. W. 34th, Oklahoma City, Okla.

## STUDIOS FOR SALE

◆Complete studio. First class condition, low rent, good business and location. Price less than one-half inventory. Good community, Pop. 9000. Dale Murray, Baker, Ore.

**FILM-FILE** for Leica, etc. Midget tin cans 1½ by 1½ with inlaid paper panel on lid for titling. Perfect storage for negatives, projection strips, raw lengths, tropical packing. 16 cans \$1. Sample 10c. Photocraft, 1019 VanDyke, Detroit.

**GOOD ALLOWANCE** for Firearms, Microscopes, Binoculars, and Celestial Telescopes, on any photographic equipment, motion picture or still, and Bausch & Lomb Spotting Scopes, and Binoculars.

**NATIONAL CAMERA EXCHANGE**, 5 South Fifth Street, Minneapolis, Minn.

**For Sale**—7x17 F&S Banquet Camera 2 Holders Case all like new \$50.00 Goerz Dagor Compound Shutter 12 inch \$50.00. Eastman View 8x10 case 2 Holders needs repairing \$10.00. Zeiss Tessar 18 C.M. F 6.3 Compur Shutter New \$40.00. Gundlach 18 inch F.6 Soft Focus Portrait Achromatic Muniscus Lens in Betax Shutter like new \$35.00. Hastings 6615 Santa Monica Blvd., Hollywood.

## CINEX 16 MM. FILM

Regular speed — 100 ft. \$3.25; 50 ft. \$1.75. Nonhalation supersensitive Panchromatic for night shots, interiors and exteriors 100 ft. \$4.50. Processing in San Francisco included. Send for Sample. CINEX FILM LAB., 221 Golden Gate Avenue, San Francisco.

Please mention Camera Craft when corresponding with Advertisers

C  
A  
M  
E  
R  
A



"The City of My Dreams"

17th Annual Los Angeles Salon

Dr. D. J. Ruzicka



CRAFT

REG. U. S. PAT. OFFICE

APRIL 1934  
VOL. XLI Number 4  
SAN FRANCISCO  
• CALIFORNIA •  
PRICE 20c



**In This Issue**

**CREATIVE PICTORIALISM II . . William Mortensen**  
**COPYING for the MINICAM . . . Bland H. Casebolt**  
**HOW IT WAS DONE . P. Douglas Anderson, A.R.P.S.**  
**SPECIAL CAMERA EFFECTS . . . Cinema Section**



"A Reserve Illustration by Underwood & Underwood"



## SUPERIORITY OF NOMIS PRINTS WINS RE-ORDERS



Amateurs are delighted with the sparkling brilliance, fine detail and rich warmth of Haloid Nomis prints. Happy, they order more.

Nomis uniformity means fewer make-overs, less waste. Profits increase. Use coupon.

THE HALOID COMPANY, Rochester, N. Y.

New York Office: 225 Fifth Ave. Chicago Office: 68 W. Washington St.

Los Angeles Agent, A. H. Muhl, 1121 S. Los Angeles St.

San Francisco Agent, A. H. Muhl, 222 Kearny St.

The Haloid Co., Bldg. 3,  
Rochester, N. Y.

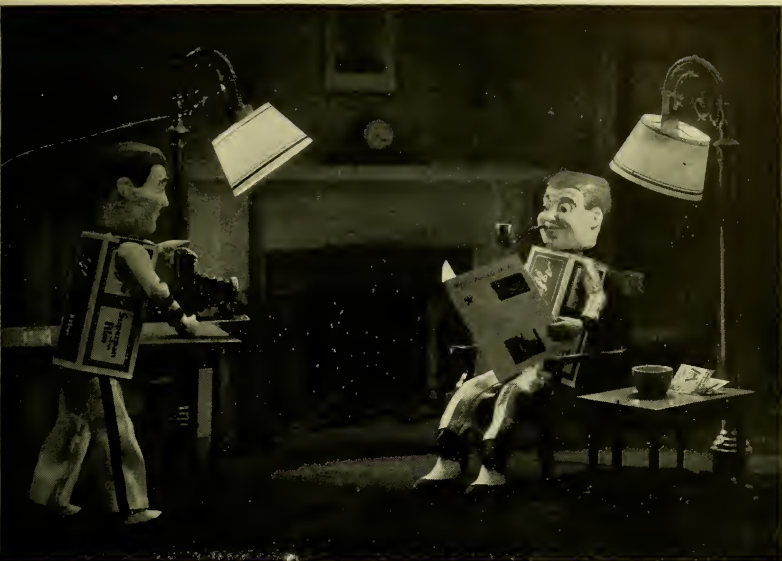
Please send 2,500 sheets,  
 $2\frac{3}{4} \times 4\frac{1}{2}$ , for this \$5.00.

Name .....

Address.....

# HALOID NOMIS





# Overcoming Darkness in Every Detail

This headline tells the story of Agfa's Superpan.

Increasing interest in night photography brings many letters telling of the thorough job that Superpan performs. On the basis of performance alone, Agfa bids for your business.

Your subject illuminated with the new Photoflood lamps,—a camera of F6.3 or faster lens speed loaded with Agfa Superpan—the results will please you—in every detail.

Superpan's speed in artificial light is about six times that of standard roll film, thus bringing its advantages to

the owners of inexpensive cameras, for its speed and sensitivity mean shorter exposures and better results.

Superpan's complete color sensitivity gives to the final print a true relationship of color values. Its fine grain allows enlargements of many dimensions without losing that "contact print quality," and its anti-halation coating protects fine details—even in harsh highlights.

This famous emulsion is now supplied in rolls, in packs, in an exclusive Agfa cartridge (for Leica, Contax and similar cameras) and in cut film of popular sizes.



## BRANCHES:

CHICAGO  
LOS ANGELES  
SAN FRANCISCO  
SANAS CITY  
NEW YORK  
CINCINNATI  
OSTON

*Made in America by*

**AGFA ANSCO CORPORATION**  
BINGHAMTON, N. Y.



CANADA: AGFA ANSCO LIMITED, TORONTO

Please mention Camera Craft when corresponding with Advertisers

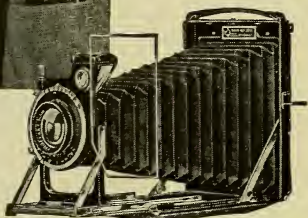


# K A W E E



FEATHER LIGHT

BLADE THIN



In preparation for your projected photographic tour this summer, do not fail to include a Kawee. Feather-light and Blade-thin, it is truly a miniature camera which slips in your pocket with utmost ease. It will, however, record your tour in photographs of ample size (either  $2\frac{1}{4} \times 3\frac{1}{4}$  or  $9 \times 12$  cm) and therein lies its distinct advantage. Its refinements include: double extension bellows, rising and falling front, wire and brilliant finders, etc. Literature on request.

**BURLEIGH BROOKS**

127 West 42 St.  
NEW YORK

## THE JAPAN PHOTOGRAPHIC ANNUAL

A new annual showing the work of the Japanese pictorialists. 80 fine illustrations.  
Paper.

**\$3.00**

**CAMERA CRAFT  
Publishing Company**

703 MARKET ST.

San Francisco

California

# COMING

William Mortensen's second article on the aims, objects, and methods of Creative Pictorialism appears in this issue. Titles of the three other articles which will complete the series are as follows: Selection, and the Function of Control, The Fallacy of "Pure Photography," A Romantic Manifesto and a Prophecy. To our knowledge no writer on photography has ever met with the instant and universal acclaim that has been bestowed upon Mr. Mortensen for his articles appearing in this magazine. We are proud to announce that he will write further articles upon the completion of this series, the subject matter of which will be disclosed later. However, we cannot resist the urge to prophesy, with respect to part of Mr. Mortensen's future articles. The "Treat of the Year" for Minicams will be Mr. Mortensen's writings on the Use of the Miniature Camera for Pictorial Photography.

P. H. Oelman is a successful illustrative photographer, an instructor in photography, and a prominent pictorialist. Several of his pictures have won awards in our advanced competition. He is convinced that the practice of still life photography is a most practical method for learning a great deal about both composition and lighting. His article on Still Life Photography will be written from that view point.

Edwin C. Buxbaum, A.R.P.S., whose name is already familiar to the readers of this magazine, has prepared a carefully worked out series of four articles on Miniature Camera Technique which we know will prove very helpful to all Minicams. The sections on films and filters are of especial value and approach the two subjects from a new angle that is most instructive.

J. G. F. Druce, M.Sc. (Lond.), R. Nat. Dr. (Prague), F.I.C. is an English scientist of international reputation not only in photography but in other scientific fields as well. His article, Some Remarks on Infra-Red Photography, is authentic, interesting, and original.

P. Douglas Anderson, A.R.P.S., whose article on "Outdoor Portraiture" in our October issue received much favorable comment, has devised a splendid means of illustrating the various lightings that may be obtained outdoors. His article "More About Outdoor Portraiture" will appear in an early issue.

George H. Needham, F.R.M.S., whose article on "Low Power Photomicrography" appeared in our February issue is now working on a second paper which will discuss the ramifications of high power work. This paper will be of great interest to those who are doing advanced work in photomicrography.

Albert Jourdan has prepared a very instructive article describing just how he performed an actual commission for a montage photograph, "A Job of Photomontage" will interest both the professional and the amateur for the principles of montage have a wide application.

Thomas A. Wilson, M. S., has devoted much time and study to the subject of composition. He has prepared a series of three illustrated articles which we are confident will clear away much of the mystery surrounding this important aspect of picture making.

Robert Mackay has for many years been connected with a large engraving firm and has also sold a quantity of photographs as a free-lance. Such training makes him eminently fitted to write on "Photographs For Reproduction." We specifically asked Mr. Mackay to write this article because of the large number of requests we received for more of such material from those who read his "The Print for Rotogravure Reproduction" in our September issue.

Please mention Camera Craft when corresponding with Advertisers





*"Fagin"*

*William Mortensen*

# Venus And Vulcan

William Mortensen

## An Essay On Creative Pictorialism

### 2. Sources and Uses of Material

A SORT of Hamlet-neurosis that prevents them from making up their minds or arriving at any useful course of action seems to grip most photographic beginners when they at last hold in their hands the earnestly desired and long dreamed of camera. In their fond imaginings they had glimpsed themselves producing (with a simple turn of the wrist) prints of supernal loveliness which were instantly accepted for the London Salon and hung amid universal acclaim. But when the passionately coveted camera is at last a reality, the nasty thing leers at them with its glass eye, and they suddenly realize that they haven't the vaguest idea *what* they want to take pictures of. In the very young such indecision is perhaps to be expected, but many photographers old enough in their craft to know their own minds show evidences of the same malady of uncertainty, and give themselves over to futile diletantism, dillying with still-life and dallying with landscape, and, in a word, rapidly getting nowhere. Even the sincerest worker will, in his candid moments, admit to spells of doubt and confusion, when his purposes and plans seem all awry and his well-ordered world a chaos. It was in such a moment that I once imagined a picture in the grand style (possibly a mural for a Camera Club) that might be called "The Frustrated Photographer"—a huge monumental figure of a man standing on the curve of the world; in his hands, a camera; on his face, an expression of bewilderment and desperation. Surrounded by a world teeming with people, colours, shapes—he stands appalled and utterly at a loss.

The world is a confusing place to live in, no doubt about it. People, things, shapes, colours, smells, noises, blazing light and bewildering darkness are all scrambled up in it, and there are times when it seems to make no sense at all. The artist, perhaps more than any other person, is aware of this chaos in nature, and, more keenly than any other person, he desires *order*. Fundamental to all art is a sanitary impulse to tidy up this disorderly world, and give it sense and meaning and direction. Herein the

artist and scientist are as one, for they both seek to arrange nature into comprehensible patterns, or at least to find a few points of reference amid the uncharted, whirling confusion. The sources of material that I am going to discuss provide such points of reference, whereby the storm-tossed pictorialist, floundering in the flux of existence, may be able to orient himself.

There is one type of photographer who is aware of no such need of orientation, because he meets confusion with confusion, chaos with chaos. No heavy consciousness of purpose weighs down this happy mortal who snapshoots as he goes. Sunsets, old shoes, beautiful faces — whatever arouses his interest for the moment, he squanders film upon with haphazard, uncritical enthusiasm. Good pictures are no doubt sometimes obtained by this method, thanks to the occasionally beneficent operation of the usually hostile laws of chance, but to discuss it here would be of no more avail than suggestions on how to win at roulette. Genuine artistic activity is invariably based on *plan* and channeled to a narrow choice of subject matter.

"But," protests the frustrated photographer with a slight quaver in his voice, "how can one *make* a choice amongst all the profusion and confusion of things?" The answer to this, as to some other pressing problems, is to let nature take its course. The initial choice of subject matter is usually not something that should be made, but something that *makes itself*. A normal mind generally exhibits a predilection toward a single clearly defined type of subject matter. Realization of this fact will serve to eliminate a great deal of the prevalent photographic neuresthenia.

The number of fundamental types of picture-minds, as indicated by their instinctive selection of material, is not large. Let us, to make the matter clearer, consider a concrete instance. Imagine, if you will, that five photographers are observing the scene in the Grand Central Station during a rush hour—surely a subject full of complication and confusion. What picture material will they find there? . . . Their choice of subject matter will fall probably into one of five categories. One of them might see in the crowd nothing but *faces*—faces young or old, tired or eager, resigned or rebellious—and among them *one* face would stand out, vivid and significant, and demand to be made into a picture. Another of these five gentlemen, being of a poetic temperament, would be sensitive to the emotional tone or *atmosphere* of the scene. He might conceive of a strained, taut figure set against a background of hastening crowds, to be titled *Rush Hour*. For the third photographer the *human* values would predominate. Here and there among the multitude he would observe little *dramas* in progress—joyous meetings and saddened partings, newcomers bewildered in the throng, and disappointed watchers. The fourth photographer, however, gives little attention to these things. He notices rather the interesting *patterns* made by the crowd as it swirls and eddies, or the design of shadows cast by the sun slanting through the great windows.

These four, if they had their cameras with them, might conceivably get their pictures on the spot. But the fifth man, who is of a philosophic and speculative turn of mind, gets his ideas there and produces his pictures elsewhere. For him a picture idea would take the form of a proposition, such as: "We are too much in a hurry," or "People should travel more."





*"Preparation for the Sabbath"*

*William Mortensen*

To demonstrate the first he might produce a cartoon-like composition of huge hurrying feet, crushing down populations and cities, spurning everything in their insane haste to get somewhere else. For the second proposition he might aduce an illustration of a lovely lady reclining at ease in her luxurious Pullman drawing-room while the miles slip by outside. Such a picture as the latter he might (if his instincts were commercial as well as philosophic) dispose of to the New York, New Haven and Hartford for a tidy profit.

Despite the infinite variety of nature, these five types of picture minds—fulfilling themselves through Personality, Mood, Drama, Pattern and Propaganda—are fundamental enough to cover practically all pictorial activity. Artists who have accomplished most will be found to have expressed themselves along one of these lines. The eclectically minded butterfly who flits from flower to flower may entertain himself a great deal, but the person who discovers and sticks to his natural predilection for picture material will go much further.

The various schools of photography that were discussed in the last article would of course deal with these five sources of material in their respective characteristic idioms. Let us examine these sources somewhat more in detail, noting the possible Realistic, Non-realistic and Meta-realistic interpretations of each.

Assuming for the moment that our frustrated photographer has overcome his frustration to the extent of fixing on personality as the phase of pictorial expression most congenial to him, he is apt (if he is like other mortals) to be still subject to doubts and confusions. He is confronted, for instance, with Mary Jones, a definite personality. The camera is set, the light is right, Mary is waiting: what is he going to do? Two general courses are open to him. He may, in the first place, render Mary Jones as —Mary Jones: a faithful likeness, in other words, save for a possible tactful subordination of Mary's grosser physical blemishes. If Mary Jones is a personality of outstanding strength the resulting picture may turn out to be a very interesting and vital thing. If she is not, it will be just another "camera portrait," of no interest at all except to Mary and her admiring friends.

On the other hand, he may see in Mary Jones, not the accidental things that distinguish her from Gwendolen Chumley, but the important eternal things wherein Mary and Gwendolen are the same. She becomes significant, not as an individual, but as a manifestation of the Eternal Feminine. He may visualize her, perhaps, standing amid the growing grain, deep-breasted and broad-thighed, as Ceres, mother of harvests. Or as "Mystery, Babylon the Great," whose sins were written on her forehead. Or without allusion, simply as a *woman*. Such universal large conceptions would call for broad monumental treatment. He would eliminate everything accidental and contemporary in costume, head-dress and pose, and strive for the utmost simplicity of line and mass. He would take advantage of the facility for control afforded by such processes as bromoil transfer and paper negative, and would utilize the resources of "projection control" for selective simplification, elimination, or distortion, in order to purge his conception of mere personal and individual implications. Working along these lines, he might well find the abstract qualities of the nude adapted to his purpose. But if his interest lay in the direction of faithful likeness, he would not, if he were a person of any taste, resort to the nude; for it would immediately raise questions as to the propriety of Mary Jones thus exposing herself, and introduce numerous other considerations, all non-aesthetic.

He might also make the experiment of photographing Mary from various strange and unaccustomed camera angles, but in so doing he



## HUMAN · RELATIONS · 1932

*William Mortensen*

would reveal that his preoccupation was with *pattern* rather than personality.

The first mentioned method of rendering Mary Jones is, of course, the realistic one, and the second, which interests itself in personality as type rather than individual, is the non-realistic, creative interpretation. It is in the field of sincere, direct portraiture that the greatest opportunity of the realist lies, an opportunity that he, oddly enough, has rather neglected. Of course, and here is the sticking point, the sole strength of such

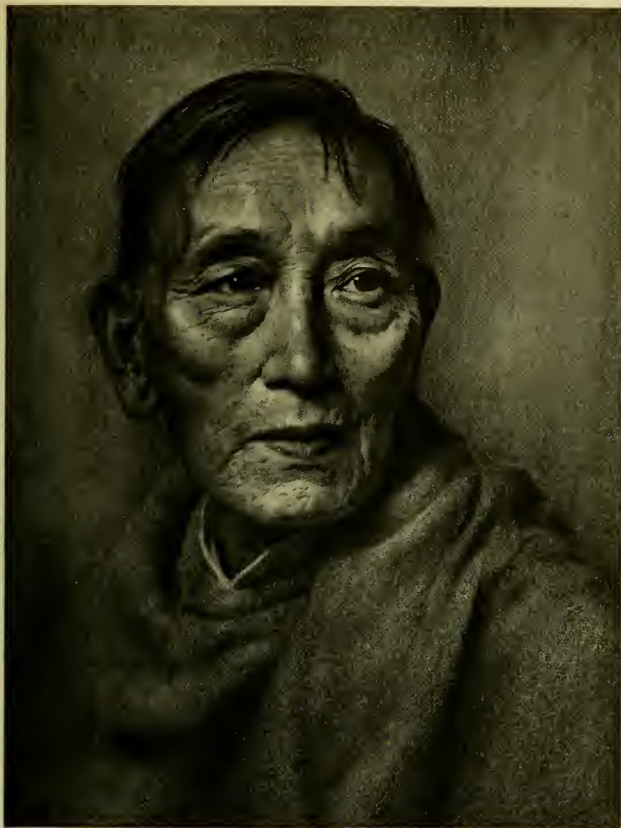
portraiture depends on the strength of the subject, and without the interest of a rarely dominating personality it degenerates into either a conventional camera portrait or an unpleasantly detailed topographical map of skin imperfections. It might appear that personality could not possibly come within the purview of the Meta-realists, but they have touched on it by inference and satiric implication. I have seen a quaintly comic photomicrograph of a bug that in charm of personality and thoughtful quality of expression far surpassed many a countenance seen on the screen.

If our photographer seeks to express himself through the second medium, of mood or atmosphere, he will find his material most clear and unpolluted in the moods of Nature herself. Leonard Misonne finds it in still country lanes and village streets in the early morning light, and from trees, earth, sunlight and sky he builds quietly lyrical effects. Human figures and human habitations, when they appear, seems as firmly rooted in the Flemish soil as trees. Leaving the country-side for the great city, one may find impressions of power and speed and multitude such as Margaret Bourke-White has given in her pictures. Elementary forces—wind and waves and leaping flames—call up emotional images. So also does music, however distasteful the idea may be to those that hold that music is an absolute art. The strength and masculine stride of a Bach toccata, the lascivious musing of *The Afternoon of a Faun*, the solemn gothic mysticism of Cesar Franck's D minor symphony, all teem with images, and are a rich and scarcely touched vein of material for the pictorialist. "Montage" is often useful in the creation of atmosphere of a sophisticated, synthetic type, building up an emotional impression by means of a related series of super-imposed images.

The strict realist expresses a pious aversion to mood as a photographic material, although it occasionally appears, in an accidental fashion in his pictures. Mood is too evanescent and fleeting a thing to interest much the classically minded, but it is the very breath of life to the Romantics; they are most sensitive to it and best understand its use. Boecklin among painters and Misonne among pictorial photographers supply notable instances of the romantic interpretation of mood. In their handling of strange and delicate atmospheric effects the meta-realists reveal with particular clearness their close sympathy with the Romantics.

The third photographer, who picks drama as the field of his endeavor deals with human qualities, not static and composed, but in action and reaction, coping with problems, struggling with opposition, meeting obstacles. These struggles and problems and their emotional over-tones constitute drama. No other field of pictorialism is so wide in its appeal: it caters to every taste, from the lachrymose sentiment of the well-known chromo, "The Doctor," to the stark horror of Goya's close-ups of war. In no other field is bad taste so blatantly exhibited, and no other offers such challenge to the genuine imagination.

Drama may appear in either of two ways, explicitly or implicitly. In the first case one has to do with a more or less literal representation of a scene, a pictorial anecdote or "story-telling picture." Outstanding examples of this type are furnished by Hogarth in his "Rake's Progress" and "Marriage a la Mode." Instances of the successful use of this sort



*"Wong"*

*William Mortensen*

of drama in pictorial photography are exceedingly rare, though unsuccessful instances crowd every amateur competition. Drama of the second type, the implied, deals not with overt actions and confrontations of opponents, but with suggestions, masked emotions, power held in restraint, moments heavy with potentialities and reminders of storms just past. Thus there is drama in character portrayal; for character is the cumulative result of accomplished struggles. It is this dramatic perspective that distinguishes great portraits, such as da Vinci's drawing of himself



as an old man, and Titian's portrait of Sixtus X. In the meeting of drama and personality is one of the richest opportunities of the pictorialist.

Drama of the direct explicit sort, and also the implied drama of racial character, lend themselves to treatment in the realistic vein, as is clearly demonstrated in Anton Bruehl's photographic records of Mexico. To both the classic and the romantic variants of the non-realistic method drama is a congenial medium. The Romantics especially, with their exuberance and feeling for contrast, find in drama, either of the explicit or implied kind, their fullest and most characteristic expression. A weird and strange sort of drama is certainly possible to the meta-realistic manner, though I have seen no instances of it.

The fourth of our photographers in the Grand Central Station, as you may remember, was attracted to the *patterns* created by the swirling crowds and the designs of light and shadow. Other themes likely to attract the lover of pattern are still life, architecture, and formal landscape. The most effective presentation of pattern is in terms of rather neutral subject matter: the introduction of the human element usually detracts from the pattern-interest. For the photographer, at any rate, the "abstract design" and "absolute pattern" so dearly beloved by theorist and aesthete are non-existent. The camera dictates that you must have subject matter of some sort. Even the geometric arrangements in moth-balls or sugar cubes, so much in favor a year or so ago, have their perfectly concrete subject matter. Pattern manifests itself in two ways: as inherent, or as created. That is, the devotee of pattern may either take it as he finds it *ready-made* in accidental arrangements and in nature forms, or he may work freely with his material, *shaping* it into patterns, building still-life arrangements to fit a decorative scheme, or by "projection control" distorting forms into a preconceived significance. The use of "camera angles" is a special case of created pattern: in seeing a familiar chair, for instance, from an unfamiliar angle, you are for the first time cognizant of it as a shape, a mass and a design, instead of as a humble, utilitarian piece of furniture.

The realists lay much stress on "texture" and "tonal relation," which are, of course, aspects of pattern. But they are interested in these things primarily as subjects for complete and veracious rendering, not for their expressive qualities. The expressive qualities of pattern are much valued by the non-realists, though the energetic Romanticists seldom find pattern sufficiently exciting to treat as an end in itself. The meta-realists, however, revel in it, and, in the few authentic examples of their work, they have above all revealed a facility for discovering and presenting new and fantastic patterns ranging from ethereal fragility to a sort of gothic grotesque.

The four types of picture minds that we have just discussed represent primary sensual and aesthetic reactions to nature. The reaction of the fifth type, the didactic, propagandizing type, is secondary and intellectual. Ideas, not sensations, are its basic materials, and the art-form is strictly subordinated to them. Two things mark the propagandist—the fact that he is obsessed by an opinion, and that he wishes to persuade you to a course of action. How shall he persuade you? Quiet speaking and subtle reasoning are of no avail. Paradoxically enough, propaganda,



"The Outcasts"

William Mortensen

though dealing with ideas, must express itself in terms of action and emotion. Because of their direct sensory appeal, pictures are perhaps the most effective form that propaganda can take. Propaganda of this type impinges upon our minds at every waking hour, pictorially branding upon our consciousness the virtues of Listerine, Fleischmann's Yeast and Campbell's Soups. The corner grocery and the Fifth Avenue shop resort to it equally. Such excellent photographers as Steichen and Bruehl have turned their hand to propaganda of this kind. The political cartoon is another variety of pictorial propaganda with which we are all familiar.

But provinces less limited than these are open to the propagandist. The whole human comedy is his. Joining with the sardonic amusement of the ironist or the moral indignation of the satirist, he may castigate human absurdities, obscenities and brutalities, and seek the reform of humanity by revealing to it its own depravity. Goya's *Disaster of War* and *Caprichos* belong to this high type of propaganda. So also do Daumier's drawings of the law courts. Pictures such as these are not purely

"pictorial" in their appeal, and frequently carry a literary appendage in the form of an ironic title. But considerations of pictorial purity did not deter Daumier and Goya, nor will it discourage any modern propagandist with an idea worth expressing.

Though the realists are diligent and effective propagandists for their own method, the unliteral, "non-photographic" character of propaganda prevents them from using it in their pictures. The fact that it usually involves a symbolism of some sort, and always involves a passionately held opinion, gives propaganda a particular appeal to the Romantics. I know of no instance of propaganda in the meta-realistic idiom, but the arresting and startling aspects of familiar things that this method discovers to us makes it peculiarly adapted to dealing with ideas.

For clearness' sake, in discussing the five types of picture-minds and their respective sources of material, I have elected to consider these types as existing in a state of hypothetical purity. In reality, of course, the five rarely appear unmixed. *Pattern* will lend strength to mood, and *drama* and *personality* give power to *propaganda*. I have already mentioned the effective manner in which personality and drama complement each other. However, in such mixed types there is always so clear a dominance of one of the contributing elements that there is no difficulty in classification. Of the five, pattern, perhaps, most seldom makes its appearance either alone or as the dominating member in a combination. But even as a secondary element it remains powerful, and extremely rare is the picture that does not owe its qualities of clarity, strength and unity to the subtle and scarcely suspended influence of pattern.

\* \* \*

Pompilius the Younger informs us that when Venus and Vulcan settled down to domesticity, Vulcan at his wife's importunity built her a five-sided tower with a room at the top with five windows in it. Venus was fond of sitting in this upper room, gazing now out of one window and now out of another. Pompilius surmises that the five windows represent the five senses, but perhaps we shall not err in suggesting that they may be construed as symbolizing the five sources of pictorial beauty. Pompilius further relates that when Venus descended from her tower she would amaze Vulcan with reports of the wonders she had seen from her windows. Once in a while his curiosity would lure him up the stair to her room, and he would peer out, blinking and short-sighted. But he could see nothing but people and trees and mountains and things—nothing at all to get excited about—and presently he would snort disgustedly at women's foolishness and rush pell-mell back to his cellar and his forge; for black-smithing was his trade, and he understood it.

Photography of the present day is witnessing Vulcan in the throes of one of his periodic restless spells. The technician is tumultuously invading the domain of the creative worker, deriding the latter's vision of the world, and asserting the primacy of optics, mechanics, and chemistry. Venus, though somewhat irked by the aggressive mood of her spouse, is not unmindful of her debt to him, and so she possesses her soul in patience; for she knows from past experience that he will soon return grumbling to his endless productive labours in the workshop.

# How It Was Done

P. Douglas Anderson, A. R. P. S.

**A**FTER listening to a brief discourse on some of my prints, the Editor selected the pictures entitled, "Impression, San Francisco," and "Nails" as the subjects for this short talk.

Before describing how the picture was made, what it was meant to portray, etc., I should like to digress a little and take time to express just how photography appeals to me.

First let me explain that I do not belong to any particular school or mode of expression in photography. If I want to make pictures of nails, ships, flowers, plants, landscapes or portraits, I make them using the technique that I believe will portray them to the best advantage. This technique may involve the use of either the corrected or uncorrected lens. It might mean the use of paper negatives worked to obtain either a fine or coarse grain finish. The final print might be made on white, cream or buff papers to further the effect that I am portraying, and that final print might be toned as an additional aid toward that end.

I would hardly think about photographing nails with a diffused lens although the effect might be quite nice at that. Nails are hard and have a sheen and texture all of their own and the anastigmat lens can give us that quality.

When photographing a subject the paramount question is, what treatment will I accord it. Am I portraying a mood or something objective? I am against any hard and fast rule for doing everything. If I wasn't, I would limit myself to one method of expression and also limit the variety of material that is at present fodder for my camera.

I make pictures for the pleasure I derive in making them. Sometimes the quest takes me to the top of a mountain. Sometimes it is in my own home, and sometimes as Jim Doolittle aptly expresses it, we travel miles in our flivver so that we can work in the other fellow's back yard.

I admit that the camera is well adapted to rendering detail and texture, but do we always want that quality in our prints? It might be absolutely necessary for the success of one type of picture and might mean ruin for another. Textures and values alone do not make a picture. In addition we must have balance and composition, but above all, we must have a mood, an emotion, a dominant thought, to justify the prints

existence as a *picture*. Sometimes in order to build a composition, I use two and three negatives. If a worker has the necessary knowledge and skill to do this so that the finished picture is absolutely true and correct, is he wrong? I wouldn't say so, rather I would say, more power to him.

What we want is more tolerance among our various schools, not this everlasting condemning the other fellow because he does not do things our way. The only yardstick that should be used in judging a picture made with a camera is, is it a picture. I appreciate the value of the argument which holds that an artist should be true to his medium. At the same time—who is to define the limitations of a medium. At the present time one school has adopted a very narrow and another a very broad definition. I believe in working by as purely a photographic means as possible, but not to the extent of preventing myself from obtaining the effect I desire. In other words, I highly approve of making full use of the advantages of the camera and its accessories but have no intention of making a fetish of its disadvantages.

Ever since I first arrived in San Francisco, Telegraph Hill has been one of my favorite spots. I love to travel up there, not only during the daytime, but also at night, and just look over the city. It is hard to estimate the number of films I have exposed on the city from this spot under both day and night conditions, but they certainly would mount up.

This particular view has always intrigued me especially during the late afternoon when it was partially obscured by haze with the sun barely cutting its way through.

During the past several years my negatives have generally been made with anastigmat lenses. However, the objective in this particular case was not a crisp rendering of detail but of a mood and judging from past experiences, I felt that whether I wanted to or not I would have to resort to the use of one of my diffused focus lenses. Nevertheless, I intended to give the sharp lens a fair trial. After several trips the right conditions presented themselves and a series of negatives were made, with the Goerz Dagor, the Verito and a Struss. All were made on Panchromatic film with a K2 filter. The negative made with the Struss gave me a duplication of the scene as I saw it, preserving that shimmer of sun thru the haze. The Verito didn't quite make it while the Dagor gave me something entirely foreign to what I saw.

Diffusing of the negative made with the Dagor lens during projection printing was tried, but did not duplicate the effect, it simply had to be obtained when making the negative. Diffusion during projection printing is often quite satisfactory for certain subjects as is also rephotographing with a diffused focus lens a film positive from a negative made with an anastigmat lens, but I have found no method of after treatment that equals photographing the scene with the equipment necessary to portray the effect desired.

Data. 4x5 R. B. Auto Graflex. E. K. Portrait Panchromatic Film. Developed in D.7. 10" Struss F.6, 1/25 sec. The other two lenses were a 9½ Goerz Dagor and a 9" Verito.

One evening, on the way home from a demonstration I had given on Still Life Photography, I was thinking about new material that could be used for future studies. Nails arranged to form a design or pattern





*"Impression, San Francisco"*

*P. Douglas Anderson, A.R.P.S.*

seemed to have possibilities and I proceeded to make sketches of possible arrangements. A straight overall pattern of equal spaces formed by the nails was not satisfactory. The diagonal line in the lower left was introduced. This appeared a more pleasing design and I decided to make it this way.

A larger drawing board was laid on a table. This was covered with a sheet of mount board and the work of arranging the nails commenced. Selecting the nails for size was quite a job. In fact I never dreamed that twenty penny spikes from the same keg could vary so much in length. Laying the nails on the board and arranging them beat any jigsaw puzzle I ever worked. However, everything comes to an end. Two Kodakites equipped with 500 watt T 20 lamps were used for illumination. The camera was placed looking diagonally down and the exposure was made with a  $9\frac{1}{2}$  Goerz Dagor, stop F:4.5 on Defender Ortho film size 4x5. The film was



*"Nails"*

*P. Douglas Anderson, A.R.P.S.*

developed in Pyro Metol and the projected print was made on Defender Veltex developed in Amidol.

The main thought in this study was to obtain an interesting all over pattern and to make such a pattern successful the greatest care must be taken to preserve the textures and tonal values of the nails. I would not say that this is a type of picture that one would hang on their walls, but as an exercise in arrangement and in rendition of textures, it is well worth while.

I have always found that still life photography affords a marvelous means of training oneself in composition, lighting and technical matters, especially as the setup can be repeatedly photographed if necessary with slight variations until the desired effect is obtained.

# Copying For The Minicam

Bland H. Casebolt

**C**OPYING with the enlarging camera is not exactly new. There are several combined enlarging and copying cameras made for commercial work. Fritz Vith in his "Leica Handbook" devotes a few pages to the matter of using the miniature enlarger for copying, and to my knowledge is the first one to suggest its use in this connection. Being of the opinion that many miniature camera enthusiasts would find an article on the subject of value, the editor of this magazine has prevailed upon me to supply the details, so here goes.

One of the first things to do is to make some sort of a cloth covering for the head of the enlarger. Two thicknesses of rubberized cloth will answer very well, and of course you will have to design this to fit your own particular machine. It should slip on and off easily and form a light tight cover, as its purpose is to exclude the light from the film while making the exposure.

Provide yourself with some positive film or in the event that you do not make film strips you may want to use a small size commercial cut film.

If the subject that you are copying or photographing requires the use of color sensitive negative material I would recommend DuPont "Micro" or Eastman "Panatomic" film. This will have to be handled in total darkness, however after a little practice you will be able to work almost as well in the dark as with a safe light. These two films offer the contrast that is necessary for copy work.

As to lights, I find that the small table lamp designed to be used with photo flood globes, excellent. You may use the photo flood globe, however, I find that 75 watt lamps are very satisfactory. They should be set as shown in figure 1. Considerable care must be exercised in adjusting the lamps, as the illumination must be even over the entire picture being copied. The lights should be at least three feet apart and the angle from the top of the lamp to the center of the copy should not exceed  $45^{\circ}$  or a reflected picture of the lamp may be photographed when the copy is glass covered or glossy paper. The angles  $a$  and  $a'$ , figure 1, are  $45^{\circ}$ .

To focus the "camera," first make a screen by fixing, washing and drying a piece of unexposed film. Make several lines on the emulsion

side with ink. Place the copy on the copy board, paper holder or whatever device that you may use to hold the enlarging paper. Insert the focusing screen between the glass book (see Fig. 2) and place in the enlarger. Turn on the enlarger light and adjust the machine so that the projected lighted square is as large or slightly larger than the copy, using the lines made with ink to obtain the correct focus. After turning off the enlarger light you are ready to put a piece of film in place of the screen, cover the top with the hood, and make the exposure, by the light of the two table lamps shown in the illustration. A piece of black paper should be placed between the film and the top glass as shown in figure 2. This is to reduce halation.

Probably in no other type of photography is exposure and development so important as in copy work. The purest white paper reflects only 80% of the light that strikes it, while the darkest black reflects about 5%. This means that even under the best conditions the contrast is reduced considerably. While the eye is fooled, the photographic film is not, so it becomes necessary to develop the film for a longer time or in a stronger developer in order to properly render the scale of the original photograph.

A suggested method of obtaining the proper exposure and developing time, is to first make a graduated strip on bromide paper. To make such a strip, a preliminary step is to determine the exact exposure time necessary to obtain a faint but distinct fog on a piece of medium bromide paper, using the enlarger as a light source. Let us say that this time is five seconds (and it should not be less than that). Next take a piece of the same paper, size 8x10, and place it on the enlarger easel. Cover with a heavy piece of black cardboard, in which a slit has been cut 1" wide by 7" long, arranged with length of slit paralleling the short side of paper. Expose this for 5x64 or 320 seconds, move the black cover sheet another inch, make the next exposure 5x32 or 160 seconds, follow with exposures of 80, 40, 20, 10, 5, and 2.5 seconds, moving slit one inch after each exposure. This will give eight steps having an exposure ratio of 1, 2, 4, 8, 16, 32, 64, and 128, also there will be two inches of unexposed paper. Develop, fix, wash and dry.

Copy this strip experimenting with the exposure and developing times until you obtain a negative that can be enlarged on the same grade and kind of paper used in making the original strip, to give a duplicate of the strip copied. Make a note of the degree of reduction, the stop used and the exposure time.

Let us deviate from the main subject for a time and look into the matter of scaling the enlarger so it can be told at a glance to what diameter or reduction we are working. Attach a suitable support for holding the scale to the enlarger (see figure 1). In the writer's case a small board,  $\frac{1}{4}$  inch thick,  $1\frac{1}{2}$  inch wide and as high as the enlarger was used. A nail was soldered to the enlarger head to act as a pointer. Place the focusing screen in the enlarger and project the light onto a paper that has been suitably ruled. In the writer's case, the opening in his enlarger is 1 inch by  $1\frac{1}{2}$  inch, hence the ruled lines were 1 inch apart. If the light projected by the 1 inch side, when the lines on the screen are focused



Fig. 1

sharp, measures say 6 inches on the paper, then the enlargement is 6 diameters. In a similar manner find and mark the even diameter points on the scale. Of course other points may be marked if you wish.

Now back to the subject, the degree of reduction will be the fraction 1/diameter or in other words if the enlarger is set at 6 diameters, the reduction will be 1/6.

Now if you make your first test at a reduction of 1/10, you may use the following table for finding the correct exposure at other reductions.

<i>Degree of reduction</i>	<i>Factor</i>
1/20	.93
1/10	1.00
1/8	1.03
1/6	1.10
1/4	1.30
1/2	1.86
3/4	2.53

Multiply the known exposure at 1/10 reduction by the factor opposite the size desired. Of course the same stop is to be used in all exposures.



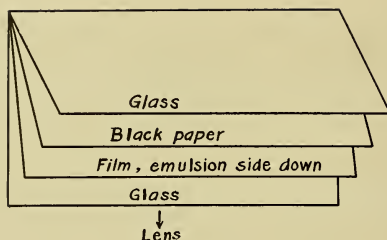


Fig. 2

When copying line work and printed matter it is best to work a little on the under exposure side, as it is highly important that the printing be clear and free from even the slightest veil. For this type of work I would suggest the caustic soda hydroquinone developer.

Water .....	32 ounces
Sodium bisulphite .....	$\frac{3}{4}$ ounces
Hydroquinone .....	$\frac{3}{4}$ ounces
Potassium bromide .....	$\frac{3}{4}$ ounces
Water .....	32 ounces
Caustic soda (sodium hydroxide) 1 ounce 260 grains.	
Use equal parts and develop for $2\frac{1}{2}$ minutes at $65^{\circ}\text{F}$ .	

After fixing and washing well, the film can then be intensified in "Monckhoven's" intensifier.

—A—

Water .....	32 ounces
Mercuric chloride (bichloride)* .....	$\frac{3}{4}$ ounces
Potassium bromide .....	$\frac{3}{4}$ ounces

—B—

1. Silver nitrates* .....	$\frac{3}{4}$ ounces
Water .....	16 ounces
2. Sodium cyanide* .....	$\frac{1}{2}$ ounce
Water .....	16 ounces

Add 1 to 2 until a permanent precipitate is formed.  
Let stand for 15 minutes, then filter.

Bleach in A and then wash for at least two minutes and blacken in B. Wash for two or three minutes and dry. This will give very dense blacks.

For ordinary copy work the developer that you have been using for your regular films will do nicely. The borax D-76 is suitable, however

\*CAUTION: Silver nitrate, sodium cyanide and mercury chloride are strong poisons and must be handled with care. Cyanide should be handled in well ventilated rooms and no acid should come in contact with either the powder or its solutions. Silver nitrate can cause bad burns.



"*Samia Cecropia Moth*"

Bland H. Casebolt

Photographed in the Enlarger

Panatomic Film; Sease No. 3 developer for 14 minutes; B (green Tri-color) filter; stop F:9; two 60 watt lamps; 10 seconds exposure.

there is no particular advantage in using a fine grain developer as the positive film has a very fine grain.

Naturally, this method is not limited to copy work. Small articles can be photographed in a most satisfactory manner (see Fig. 3). The great depth of focus of the short focus lenses makes the miniature enlarger an ideal instrument for such work. Following is a depth of focus table for a two-inch lens:

		Stop			
		6.3	9	12.5	18
Scale	1/1	1.6 mm	2.4 mm	3.3 mm	4.8 mm
	1/1.5	2.6 mm	3.8 mm	5.3 mm	7.5 mm
	1/2	3.8 mm	5.4 mm	7.5 mm	10.8 mm
	1/3	6.7 mm	9.6 mm	13.4 mm	19.3 mm

Suppose that we desire to photograph an object having a depth of 10 mm at a reduction of  $\frac{1}{2}$  size. Looking at the above table we find that

a stop of F:18 would have to be used. The focusing screen would be placed in the holder and the lines focused sharp at one third the distance (3mm) from the top of the object. The focusing may be done with the lens open. A word of caution: the lens should be used with the largest possible opening. The definition (resolving power) is better with the larger diaphragm openings. Of course a point is reached where the resolving power of the lens and film meet, then a larger stop is of no value. This point is at about f 6.3 with the two inch lens.

Some objects require a white back ground to properly set them off. A small box covered with flash opal glass and having an electric light in its interior similar to a safe light will answer the purpose in a most satisfactory manner. If a black background is desired, line another box with black velvet and use clear glass as a support for the object.

Should it be possible to unscrew the lens from your enlarger you will be able to use it for a low power simple photomicrographic camera. You can make or have a machinist make you some tubes that are threaded on one end to screw into the enlarger and on the other end to take the lens. This has the same effect as increasing the bellows draw of the enlarger. At least one manufacturer can supply these tubes for use with their equipment.

Spring is coming and with it comes myriads of tiny animal life that will offer interesting problems in photography. Problems that will be simple and others that will tax you to your wits end. But remember patience will win, and patience is a most necessary quality when making photomicrographs.

Miniature camera users who are interested in pictorial photography will find that copying will often be useful in the production of the finished picture. Many pictures require considerable dodging during printing and a great deal of working up of the print by the ink method described by Mr. Harding in the October issue of CAMERA CRAFT or by such other means as may be selected. Much hard and tedious work may be eliminated by making a copy negative of a master print on which all the necessary modifications have been carefully made. The introduction of a figure into a landscape is easily accomplished by placing the cut-out figure in place on the landscape print and making a copy negative, as described by Dr. George C. Poundstone in the March issue of this magazine. Numerous other applications will suggest themselves as particular problems arise.

# An Exposition of My Photographic Technique

Ansel Adams

**T**HIS article will deal with various forms of photography of which I have had direct or observational experience.

## Commercial Photography

The term "Commercial Photography" has unfortunately become associated with cheap and inferior work. How often one hears the expression—"I couldn't afford to spend much on this job, so I took it to a commercial photographer." It is a serious situation, and every method should be used to enlighten the public to the fact that photography in any of its legitimate phases can be good—at least possess good craftsmanship. The work of such "Commercial" photographers as Anton Bruehl clearly indicates that Advertising and Illustrative photography may express perfect technique, and an aesthetic quality as well. I think we should make a definite effort to break away from the term "Commercial"; I suggest merely "Photography"—qualifying certain phases in specific titles such as Advertising, Illustrative, Scientific, Technical, News, etc.

## Advertising and Illustrative Photography

One of the most functional phases of photography should be that of Advertising and Illustrating. It happens to be one of the most mis-treated applications of the medium; it over-steps all too frequently the possibilities of the camera, and the results are both brutal and shallow. The basis of most contemporary advertising is flagrant exaggeration in any number of directions—not the aesthetically permissible "enlargement" of the fundamental qualities of the subject. In this discussion I am excepting the very few who have the taste and vision to see beyond the shallow side-show aspect of most contemporary American Advertising Photography.

Frankly, Advertising Photography *can* convey almost all the fine qualities of the medium; it is a distinct and separate branch of photog-

raphy chiefly through the creative point-of-view of the photographer. The Advertising photograph is not a comment on reality as is the photograph made for purely aesthetic purposes. There are certain aspects of the subject "most favorable" to the lucrative presentation of the subject; a super-perfect *appearance* and environment is required and absolute truth is not invited to the party. The Advertising Photographer is confronted with problems that are not related to the purely aesthetic; he objectifies with his tongue in his cheek. So much work which might be termed "snappy" has been perpetrated on the patient public that true values are shattered and it is going to be a long up-hill grind to convince producers that their products might be more successful through more honest presentation. I think that the presentation of a product through dishonest exaggeration of its inherent qualities is no less unethical than a dishonest statement of material ingredients. Some of the European photographic advertisements attain a very high photographic and aesthetic level; the subject is suggested—not harshly forced upon the eye, and the intense realism of the suggestion lays a substantial imaginative foundation on which the spectator may build a favorable reaction.

Perhaps there is no really efficient meeting-ground for the aesthetic and the "sales-materialistic" in photography; the two do not seem to get along very well together in this civilization.

However, granting that the photographer of the present day must rely largely on the whims and practice of Commerce in order to live, it is necessary for him to have the technical equipment required for many types of work. In my own case, I avoid as much as possible types of photography requiring elaborate artificial lighting; I am of the opinion that Advertising photography of the future will be greatly simplified and of increased subtlety, and that it will employ natural light and actual environment to a greater extent. Most photography of the Advertising and Illustrative Class has become over-theatricalized and this fault lies chiefly in the domain of lighting and forced point-of-view.

I use in this type of work very little apparatus other than what has been described in the preceding articles. I occasionally employ an arc-light—undiffused, in order to obtain sharp-edged shadows, but I prefer the usual photo-flash, especially when models are used. But I only use artificial light when necessary to the required effects. My lens equipment is the same as previously listed, except that I occasionally borrow a process-type lens for special work involving precise rendition of color and extreme detail. Developing and printing processes are generally the same.

I always make one fine print of each important piece of work besides the various forms of reproduction prints. I do this in order to constantly check on the standard of my work; the sloppy complex is insidious, and hard to live down.

By all means, check on the method of reproduction which is to be applied to the print, and make the print accordingly. Half-tone, Roto-gravure, Lithograph, Offset, etc., all the reproduction processes require, for best results, print values that are within their tonal scales. I do not believe there is any rule for this—only experience can help, for there are





Ansel Adams

*New Big Trees Lodge, Mariposa Grove, Yosemite Nat'l. Park, Eldridge T. Spencer, Architect*

Data: 8"x10" Folmer View; 12" Dagor; 1 sec. at F:64 on E.K.S.S. Pan., in A.B.C. Pyro with  $2/3$  carbonate; Contact print on P.M.C. medium No. 10, in Amidol.

no two prints alike. I feel that a fine copper half-tone engraving is the best possible medium for the reproduction of photographs. In my experience, it is the only medium which can convey the photographic *blacks*.

## Montage and Superimposition

The subject of Montage requires special and lengthy treatment as it has great potentialities, and may readily develop into a specific form of art. It is not easy, and it is very little understood. It is by no means just the tricky piling of one image upon the other, or the casual association of image and type. Not only is the artist confronted with the usual two-dimensional problems of composition, but he must employ, in Montage, the purely intellectual relationships of suggested planes of more than one image and sometimes of type as well. It is best to leave this highly specialized form severely alone unless one possesses adequate understanding of its principles. There is nothing worse than badly organized superimposition.

## Architectural Photography

In this phase of the medium a great precision is required along with a gift of organization. The photographer is confronted with a completed

work of art (let us hope); its form, mass, detail, color are complete and functional to itself. It is something intellectually and emotionally integrated; it exists as a product of art and not as true subject material. The photographer must understand this clearly; he must not superimpose an interpretation out of relation to the architectural object. He must be aware of the existence-within-itself of a fine building. Architectural photography implies objectivity raised to the Nth degree. Granted that the photographer has the ability, what does he require in apparatus to engage in adequate architectural photography?

I find the following to be essential:

1. A good level with both horizontal and vertical cells.
2. A camera which is accurately made and which possesses all the swings and lifts of back, sides, and lensboard.
3. A solid tripod of eye-height.
4. A lens which will adequately cover the plate even when raised to the limits of the front board, and which is of sufficient focal length in relation to the size of the plate to prevent perspective distortion.

I use a 12" Dagor on an 8x10, and occasionally a 4½" Dagor on a 4x5. With the latter camera used with the 4½" lens I must be extremely careful to check the level of the camera and the perpendicular of the ground glass on account of the semi-wide-angle of the lens and the subsequent enlargement. Some of my most satisfactory architectural pictures have been taken with this outfit.

Distortion, as such, is to be avoided. There are often opportunities to employ intensified vertical perspective without undermining the basic form-quality of the object. However, there is nothing worse than a slight accidental distortion of any kind—it suggests that carelessness predominated in the making of the photograph. In the case of old structures which have required a slight "sag," or in the case of those types of buildings which stress the uneven line (adobe, for instance) it is necessary to clearly indicate through extreme precision that the apparent lack of the exact line is a quality of the subject and not a defect of the photography.

As a rule, interiors are more difficult than exteriors. I do not favor the use of wide angle lenses except when absolutely necessary; they always convey the impression of remoteness and false volume. I think it is much better to work with a lens or normal angle of view, and confine one's point of view to selective details which yield more of the quality of an interior than a too comprehensive view.

A matter of great importance in the photography of Interiors; as a rule the "eye-view" of the room is preferable to points of view that are forced and unreal. The room is designed to be lived in, to walk in, to sit in. One does not swing from the rafters or crawl on the rugs. This statement is made, of course, on the basis of *Architectural* photography. What might be achieved under more exotic conditions does not concern us here.

Tonal values are of great importance in relation to Architectural photography. The quality of an exterior or interior photograph can be destroyed if the tonal relations are "off-key," no matter how perfect the



"Table Set"

Ansel Adams

*Linen by Mosse, Table appoints by Gump*

8"x10" Folmer View; 18" Zeiss Apo-Tessar; combination of diffuse daylight from above and lateral artificial light; E.K.S.S. Pan., in A.B.C. Pyro; contact print on Vitava projection F-2, in Amidol.

delineation. This implies that the rendition of "substance," i.e., the materials, of the building and decorations must be accurate. Wood and glass—metal and fabric—their peculiar qualities must be felt by the spectator in the completed photograph.

The control of Carbonate of Soda in the Pyro ABC Formula is of great importance in Interior photography, especially when a glaring window is included in the field of view. The most satisfactory way of photographing interiors which contain brilliant windows is to use the photo-flash for illumination and control with a synchronizing shutter. A typical program for making such a photograph would be this:

- a. After composing, figure the proper exposure for the view *through* the window, (favor slight under-exposure).
- b. Calculate the exposure for the interior (excluding the direct effect of the window), and define the number of flash globes necessary to effect that exposure. The principal difficulty will be in keeping the quality of the interior areas in proper relation to the

quality of the outside view—the interior should always be lower in value than the outside view, except in specific instances, such as pictures indicating dusk or night. Also, be very careful in general interior lighting never to produce a photographic light effect that does not bear relation to the normal light of the room.

- c. Time the shutter so that the duration of its opening will be the proper interval for the exposure of the view through the window, during that interval the flash globes are set off and the picture is secured. I do not favor drawing the shades or any of the crude physical means of balancing light for this purpose.

The same principle applies when photographing illuminated lighting fixtures. Be very careful to make the photographic light appear logical in relation to the room-light..

## Copying Paintings

In this work I have found that the Eastman Super Sensitive Panchromatic Film with an X1 filter for natural light will give a marvelous negative in copying paintings or textiles, or any object of art or industry in colors. The same film with a K1 Filter (to balance any possible color of image or base) will give fine results in copying "black-and-white." One of the most obvious defects in most photographic reproductions of black-and-white drawings or etchings is the extreme contrast which is commonly thought to be required. In certain types of technical work an exaggerated contrast is necessary, but in the average reproduction of drawings, lithographs, etc., a close approximation of the original is the better objective. I have been able to make a reproduction that was almost a fac-simile of a charcoal drawing using the Super Sensitive Panchromatic Film. Of course, one must be careful not to over-expose, and very full development is required.

One matter of great importance; in making copies of paintings, etc., be exceedingly careful to have the ground-glass absolutely parallel in both directions to the object. There is nothing much more disturbing than a copy of a rectangular painting that "leans in" on one corner or bulges at another corner due to careless adjustment of the camera. It is sometimes possible to check the "square" of the image in the ground glass with the aid of a transparent ruler, but a better way is this: place the object on the wall and extend from the wall to the camera a true piece of wood or a string under tension. Have this projection from the wall set at exactly right angles to it; edge the side of the camera against it, and one chance of distortion will be avoided. Place the camera so that the center of the object, the lens, and the center of the ground-glass are exactly in line. That avoids another form of distortion. If the object leans from the wall (leans out from the top or bottom) adjust the back swing to the identical angle. That avoids the third form of distortion. Of course, with an apparatus built for this purpose, all these possible difficulties are taken care of.

In regard to the aesthetic factor in copying works of art, the main problem is to convey the emotional effect; and that is seldom achieved in merely "making a copy." The resultant black-and-white image must be





*"Table Set", New Big Trees Lodge*

*Ansel Adams*

4"x5" Korona View; 4½" Goerz Dagor; 1 sec. F:4.5, on E.K.S.S. Pan., in A.B.C. Pyro; outdoors in Shade; projection print on P.M.C. medium No. 10, in Amidol.

printed with sufficient intensity to suggest the intensity of color, and still keep an accurate relation of values. It is entirely the problem of the individual photographer; there are no rules. At any event, the reproduction must always be photographic; the color values correct but intensified, and the minute surface details clearly recorded. Under no conditions print on rough papers or diffuse the image. Edge and texture are of great importance and should be preserved clear and entire.

### Documentary Photography

Photographs in this class include News, Sport, Records of production in factories, etc. They are definitely communicative in character, and their aesthetic values are secondary to practical application. I am not confusing this work with the "Photo-Document" of which I shall speak later. The field of this phase of photography is so large and the technical requirements so varied that I cannot attempt to mention them here. I do very little of this work and am not in position to discuss technical matters relative to them. This field is suited above all others to the miniature camera and the use of fine-grain developers.



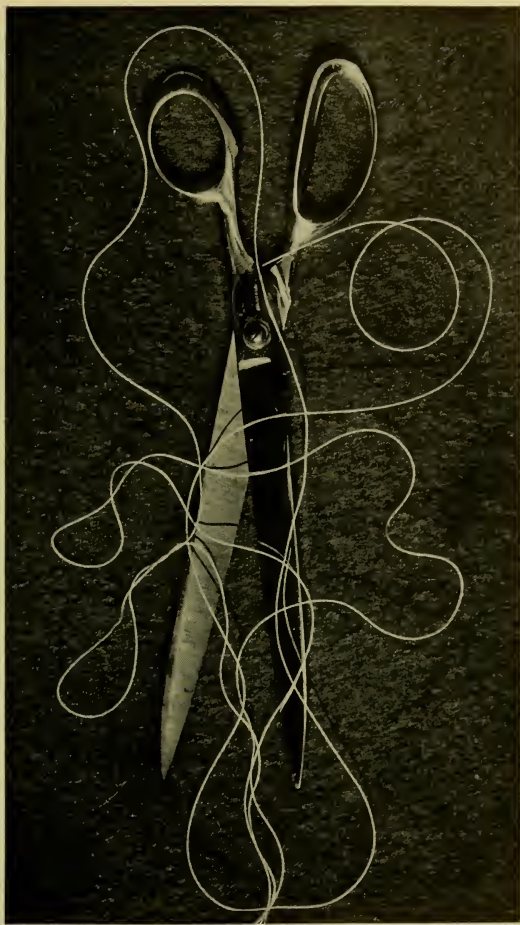
## The Photo-Document

In very recent years this phase has made a definite advance, and much contemporary photography may be so classified. This does not mean that it is a new departure; in fact much of the very early photography was of this type. In the recording of the scenes and activities of his time, with all the implications of social conditions and environments, Eugen Aget was supreme. His pictures of Paris done from about 1890 to 1910 comprise a rich and sensitive document which has not been equaled to this day. Photographs by Paul Strand about 1915-18 belong to this classification, and many of the most competent European workers have concentrated on the *significant genre*. Here in the West we have some exceedingly fine photographers who have beautifully represented this phase:—Dorothea Lange, Consuella Kanaga and Willard van Dyke have made important contributions in the presentation of the American Scene, the latter chiefly in his pictures of early California buildings and farm-steads. I believe that an entirely new group is evolving which will develop the Photo-Document as one of the most important phases of photography. I hope also that Advertising and Illustrative photography will absorb some of the qualities of honest human realism which the Photo-Document possesses.

One danger confronts the development of the Photo-document:—the danger of it becoming a tool of obvious propaganda. All art is delicate propaganda of some sort, but I do not feel that direct propaganda succeeds except in the injury to the aesthetic potentials. Perhaps one might say that the objective attitude admits delicate and suggestive propaganda which does not intrude on the aesthetic aspects, while the uncontrolled subjective attitude, without the vital check of taste, admits blatant and obvious propaganda. Comment is legitimate in art, but comment, motivated by reform or personal advantages, blends dubiously with aesthetic purpose. Art interprets; it cannot attempt prophecy, or motivate the social aspects of the world and still preserve its aesthetic integrity. In the social-constructive sense it is of immense value through subtle and significant comment on the contemporary scene.

## Conclusion

In applied photography the highest standards of technique should be consistently employed; the possible aesthetic principles should not be cast aside just because "it's a commercial job." The thing that is going to do the greatest good for photography in general is the devotion of all photographers to the perfection of their medium no matter what phase of the medium is involved. Technique, taste, and the ethics peculiar to art (which commercial interests do not adequately understand) constitute the code of all serious production. At this time—the close of this series of articles—I beg belatedly for the indulgence of the reader; I have not kept strictly to the title of the series. I have projected my discussion from the technicalities to the fields of the intellectual and aesthetic. I discovered, in attempting to define technique, that technique does not exist in itself; it is only the *substance* of the creative machinery. Any technical



*"Scissors and Thread"*

*Ansel Adams*

Data: 4"x5" Korona View; 6" Tessar; 1/10 sec. at F:22, on Agfa film pack, in A.B.C. Pyro; direct sunlight; projection print on P.M.C. medium No. 10 in Amidol.



*An example of  
Super imposition*

*Courtesy Charles  
Gassion, Designer*

Data: 8"x10" Folmer View; 12" Dagor for sign, 7" Collinear for interior; both images photographed directly on same film; E.K.S.S. Pan. in A.B.C. pyro; contact print on P.M.C. medium No. 10, in Amidol.

idea does not exist apart from application. Perfect technique is really more an *attitude* than a command of apparatus and chemicals.

No one knows the direction photography is to take in the future; much less do I know the direction of my own work. But I do know this—the definite effort I have made to define photography on a purely logical and aesthetic basis has established a much clearer understanding of the medium in my own mind. Perhaps every photographer must seek his own understanding from within himself. Photography is a powerful medium of art, and—both as an art and a craft—it commands profound respect.

\* \* \* \* \*

I have been asked to explain why I prefer the concentrated Amidol formula I use for my print developer. I have found that this formula offers the maximum brilliancy of image and depth of tone. I arrived at this formula by experimenting in various concentrations of developer in the following problems:

1. To obtain the maximum brilliancy and tone.
2. To produce entirely satisfactory tone in cases of intentional underdevelopment,

I have been able to satisfactorily develop 80, 8x10 prints in 40 ounces of developer, and feel that 100 prints could be developed in the same amount if the developer were not agitated to any great extent (thereby reducing atmospheric oxidation).

I have found the following formula to be entirely satisfactory in relation to the required effects:

Water .....	48 ounces
Sodium Sulphite .....	1½ ounce
Amidol .....	½ ounce
10% Pot. Bromide .....	¼ ounce and up

(increase when prolonged development is necessary)

I have occasionally used about double this concentration.

Amidol is most satisfactory with pure Bromide papers, but I have used it with great success with such papers as Vitava Projection.

## Correspondence

Dear Sir:

The article by William Mortensen in the February issue of Camera Craft interests me very much indeed. In a very engaging manner he has presented a point of view which paves an excellent path for discussion. As a member of Group F64 I feel obliged to answer certain points of opinion which Mr. Mortensen holds about us. I say "about us"—I really mean about the contemporary tendency which I feel we reflect rather than motivate. It is true that Group F64 has strenuously held to its program and ideals and has, in its short existence, produced a good deal of work. But the work of the Group is not self-assertive of Perfection and the Ultimate. We are experimenters who are investigating, as it were, the possibilities of the pure photographic medium. We have not based our work on the photographic precedents alone; we are attempting to define photography as a fine art, and we embrace the motives and accomplishments of all contemporary art in relation to the thought (and thought-processes) of the times. We are not imitating the superficial aspects of the other art-forms; we are concerned with the essential logic of art. All art is really the expression of the same thing, and we are attempting to define the particular man-

ner and mode of the pure photographic expression. The "Pictorialist" has acknowledged the other arts only in the imitative sense (superficially) and has neglected to remember photography in his production.

All the members of Group F.64 are independent—and all are quite different in their essential work. The Group membership is open to anyone who comes forward with original work well done and true to the medium in the opinion of all of the Group. Regarding the name of the Group—F64: let me offer a short history of it. For several years I had entertained the idea of forming a small group of workers in the modern idiom; finally, with the enthusiastic aid of Willard Van Dyke, the Group was organized. It was very difficult to find a suitable name—many suggestions were made but rejected on account of inadequacy, duplication, etc. Then Willard Van Dyke suffered a stroke of genius and thought of "F64." The Group immediately accepted the name. Not only have we not disowned it—we chose it enthusiastically. The name suggests precision and accuracy, and it does not mean that we use only stop F64!

Mr. Mortensen's term "Meta-realism" is a very good term, but I do not think he

(Continued on Page 194)



"Winter"

Advanced Medal Print

John Muller

■ John Muller's "Winter" is a fine example of what excellent pictures can be achieved in a type of photography that has been much abused. Too many amateurs upon seeing a picture of this kind have rushed out to point their cameras upward at the first tree in their path, with horrible results. What are the important elements to be considered in composing such a picture?

First, we must select a branch or branches with a personality. Notice the interesting, even exciting, way that this branch moves through and breaks up the picture space. The cap of snow assists in adding further interest value. Second, care must be taken that the line of the branch does not divide the picture diagonally into two equal parts for such a composition destroys the flow of lines, because exactly equal balance gives a static effect to a picture. To note this effect trim the picture from the bottom to the point where the branch leaves the main trunk. Third, the composition must be arranged so that the diagonal branch is supported and does not appear to be in danger of falling. There are three elements in this picture which contribute such support. First, the connection of the branch with the main trunk and the fact that the direction of the trunk opposes that of the branch. Second, the fact that the branch

(Continued on Page 186)





"Sahuaro Blossom"

Ralph H. Anderson

Amateur Medal Print

■ Ralph H. Anderson presents a pleasingly simplified flower study in "Sahuaro Blossom," with a nice rendition of texture in the blossom. Those who follow the purist ideology in photography will criticise this picture because all elements are not in sharp focus. But on the other hand it seems reasonable to argue that the present treatment gives a principality to the blossom that would be destroyed if complete sharp focus was adopted. One could wish that the very fuzzy parts in the upper right were either better defined or eliminated altogether as they seem a trifle distracting in their present state. We believe that these could have been torn away before taking the picture and one or two of the buds placed in the lower part of the area so that it would not appear too blank. Trimming from the top and right to eliminate this area and place the blossom in the upper right third of the picture space is not entirely satisfactory as there is then not enough on the left, and the arrangement of the buds does not seem to conform to such a trimming.

Data:  $3\frac{1}{4}" \times 4\frac{1}{4}"$  R. B. Graflex; 6" Bausch & Lomb;  $1/35$ th sec. at F:8 on Commercial Pan. cut film in A.B.C. Pyro; print on E. K. Portrait Bromide D.

is tied in with the edge of the picture in the upper right corner. And third, the trees which appear in the lower right. It is also worth noticing that the black border is quite necessary to the picture, and helps a great deal in tying the whole together, and may be considered as a fourth element supporting the branch. The small dots of snow in the lower left add nothing to the picture and might well be eliminated.

Data: 4"x5" Graflex; Zeiss Tessar F:4.5; 1/10 sec. at F:16 on Defender X. F. Pan. Special, with K 2 filter, developed in M. Q. tank; Defender Velour Black J, in D-72.

■ In "Sand and Shadows" F. Y. Sato has created an interesting all-over pattern which we believe would be stronger as a design if the curved lines formed by the ridges of sand in the upper right were more evident and carried a little further down into the picture. Also we believe that it is a mistake to treat a subject such as this by the paper negative process inasmuch as texture should play an important part and it cannot be fully maintained when paper negatives are used. The shadows in the lower right assist the composition by helping to carry on the curving lines which start in the upper left. So far as we can see from the print these shadows are apparently part of the original negative so they must be correct but to our eye they seem to be cast by light coming from the opposite direction from that shown in the print. All of which goes to show that it is dangerous to jump to conclusions regarding the direction of light.

Data: 4"x5" Graflex; 8¼" Goerz Dogmar; 1/15 sec. at F:22, on E.K. S.S. Pan. in Metol-Pyro; paper negative on E.K. Kodaline from paper positive on E.K. Kokaline; final print on E.K. Opal.

■ "Helen" by Karl Erhard Siegel, is a quite successful rendition of the "large head" type of portraiture, done in the romantic rather than in the modern manner. The modeling is good and the flesh tones are well maintained but no attempt is made to show skin texture. The shoulder line is important as a support for the head and we would like to have it a bit more strongly shown and carried slightly further to the right.

Data: 4"x5" Graflex; rear element of 7" Plasmatic; Agfa Plenachrome film.

■ The charm of H. F. Kells' "April" lies in the lovely atmospheric quality of the print which seems to convey the effect of sunshine barely cutting through an overcast sky. There is something about this picture which bothers us and we come to the conclusion that it is due to the fact that the motion of the two trees is from right to left, while that of the figures is from left to right. Such a situation is not necessarily a fault but in this picture it does seem to bother and set up a certain degree of divided interest between the tree and figure on the right and the tree and figure on the left which the pointing figure is not strong enough to overcome. Because of this we believe the picture is much improved by trimming on the left until the tree at that side is eliminated. Try this and see if you agree.

Data: 1/50 sec. at F:6.3, on E.K. S.S. Pan, in D-76; Print on Agfa Indiatone rough matt, from paper negative on P.M.C. No. 5, in D-72.

■ Miniature camera users will be pleased to know that the 11"x14" print "Mary Sears," by Helene Sanders has practically no evidence of grain, and is in all respects a finely executed portrait. The high key of the print is thoroughly in keeping with the personality of the sitter, and constitutes the picture's chief claim to pictorial merit.

Data: Leica camera; 90 m.m. Elmar; ½ sec. at F:4; 3000 W illumination; on E.K. background negative film, in M.Q. Borax (McMurtry formula); print on E.K. Portrait Bromide E, in Amidol.

### Scoring for Club Trophy Cups

Two new clubs, the San Jose Camera Club and the Utica Camera Club, enter the scoring column this month. At this writing we do not know whether the Utica Club belongs in the Large or the Small club class so we may have to shift them around next month. Again we suspect that several contributors have forgotten to place their club's name on the back of their prints. No club credit can be given for an award unless the name of the club appears on the print. Please remember this.

Individuals winning awards for their clubs are as follows: Don Kirby Oliver, for the California Camera Club; H. F. Kells, for the Camera Club of Ottawa; F. Y. Sato, for the Japanese Camera Club; John Muller, for the Pic-



12

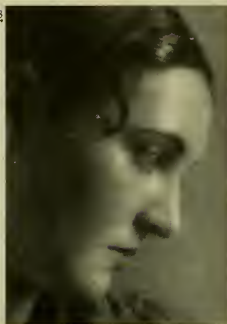


3

## ADVANCED APRIL



14



13

Second: "Sand and Shadows", F. Y. Sato, A.R.P.S.

Third: "Helen", Karl Erhard Siegel

Fourth: "April", H. F. Kells

Fifth: "Mary Sears", Helene Sanders, A.R.P.S.

## ADVANCED COMPETITION

April, 1934

### List of Contributors

Eric Barnes  
George Buford  
Evelyn Curtis  
M. K. Curtis  
Herbert L. Daniels  
Hanford H. Douglas  
Eldon L. Eby  
G. D. Farnsworth  
Erwin Gordon  
Jack Hazlehurst

Virna Haffer  
Erica Insfourth  
H. F. Kells  
Sorab J. Kharegat, A.R.P.S.  
Philip Langdon  
Leslie A. Lauks  
Delina Margot  
John Muller  
John Gilbert Nelson  
Samuel Norstein

John D. Olson  
Clarence L. Parks  
Francisco M. Quesada  
Herbert Ransome  
J. Rodrigues  
Helene Sanders, A.R.P.S.  
F. Y. Sato, A.R.P.S.  
A. W. Servatius, A.R.P.S.  
Karl Erhard Siegel  
Dr. Max Thorek, F.R.P.S.

torial Photographers of America; F. M. Beckett, for the San Jose Camera Club; and Helene Sanders, for the Utica Camera Club.

### Contributing Clubs

California Camera Club  
Camera Club of Ottawa  
Crockett Photographic Society  
Fort Dearborn Camera Club  
Fresno Camera Club  
Golden Gate Leica Club  
Hamilton Camera Club

Japanese Camera Club  
Photographic Society of San Francisco  
Pictorial Photographers of America  
San Jose Camera Club  
Schenectady Photographic Society  
Utich Camera Club  
Washington (D.C.) Photographic Soc.

### Standing of Clubs

#### Large Clubs Advanced Class

Pictorial Photographers of America.....13  
Camera Club of Ottawa.....11  
Fort Dearborn Camera Club.....7  
California Camera Club.....4  
Utica Camera Club.....1

#### Large Club Amateur Class

Photographic Society of S. F.....14  
Schenectady Photographic Soc.....12  
California Camera Club.....7  
Golden Gate Leica Club.....3

#### Small Clubs Advanced Class

Japanese Camera Club.....14

#### Small Clubs Amateur Class

San Jose Camera Club.....2

■ Don Kirby Oliver, in "Prince Pupa Pomer" seems to have caught something of the unhappiness of a race which (so we are told) is not pleased with the inroads which civilization has made in its native land. The flower is an appropriate touch, and helps to lift the picture out of the ordinary. The sweater seems to us an incongruous note, and we believe the picture would seem truer to its subject, and consequently more pictorial with the sweater removed.

Data:  $3\frac{1}{4}" \times 4\frac{1}{4}"$  Popular Pressman; 1 sec. at F:8 on Defender H.G.S. in Glycin Daylight through window—no reflectors; print on Veltura P, in Cumminone print chromium intensified and redeveloped in Amidol for tone and snap.

■ J. W. Schuler has been quite successful in catching a windswept quality in "Poplars" and we believe it would not be amiss to bring this out in the title. The leading line of the road is rather centrally located and this in combination with the too evenly spaced trees with the largest tree in the center of the picture gives a rather static effect that does not help. Such evenly balanced compositions are strongly associated in our minds with the classical pictures which dealt with very grandiose subject matter and consequently needed a great amount of stability, in keeping with the dignity of their themes. A more fluid composition seems appropriate to the present type of picture.

Data:  $4" \times 5"$  Premo; R.R. lens;  $1/100$  sec. at F:8, on E.K. Commercial Ortho, in M.Q.; print on Defender Velour Black; clouds from separate negative.

■ We believe that F. M. Beckett has handled the two trees in a very graceful manner in "Sycamores." The picture is rather lacking in a leading line and consequently the eye has difficulty in moving readily into the picture. A more marked recession of planes might help, but this difficulty seems chiefly due to the character of the landscape.

Data:  $5" \times 7"$  seneca View; Zeiss Tessar 1C;  $\frac{1}{2}$  sec. at F:32, 3:30 P.M. in October, on Portrait Pan., in Pyro-Metol tray; enlarged through Verito lens on Vitava Opal T in metol developer.

■ C. F. Adam's "Curly Head" is well posed and the seriously interested expression is intriguing in so young a child. The white dress offers difficult photographic material and Mr. Adam has handled it perfectly. The modeling of the face is not entirely successful and we would like to see a bit more roundness.

Data:  $3\frac{1}{4}" \times 4\frac{1}{4}"$  Graflex;  $6\frac{1}{2}"$  Cooke;  $1/25$  sec. at F:3.8 by two pairs of photo-floods on Agfa S.S. Plenachrome in D-7; Vitava Opal in Amidol.



12



13

AMATEUR APRIL

15



14

Second: "Prince Pupa Pomera", Don Kirby Oliver

Third: "The Poplars", J. W. Schuler

Fourth: "Sycamores", F. M. Beckett

Fifth: "Curly Head", C. F. Adam

#### AMATEUR COMPETITION

April, 1934

##### List of Contributors

C. F. Adam  
Ralph H. Anderson  
A. V. Astone  
Stanton H. Becker  
F. M. Beckett  
Roland F. Beers  
Rolf H. Bruhn

Cecil H. Biver  
A. E. Burns  
Robert N. Bushman  
Jack Cantrell  
Edwin B. Carr  
Bernard J. Cassidy  
George Clayton

Raymond B. Collier  
John Culp  
Leonard Davis  
Charles Ditchfield  
E. F. Eaton  
Mortimer Friedman  
I. L. Gartland

(Continued on Page 195)



# Cinema Section

Edited by

William A. Palmer

## Special Camera Effects

Multiple exposures and "process" photography of all kinds have a peculiar fascination for all amateurs as soon as the first "shooting pains" are over and the movie camera becomes a friendly tool with which to create new and interesting screen effects. The introduction of the new super sixteen cameras, modeled along the lines of professional equipment, testifies to the increased use of advanced cinema technique and to the use of trick or process photography for amateur films.

While these new cinema marvels, with their many attachments and adjustments, make special camera effects more easily attainable, it should not be supposed that the ordinary cine camera is unable to do wonderful things too. On the contrary the average sixteen millimeter camera is capable of doing a good deal of advanced work, when used with a bit of ingenuity. However, rather than be too general in the discussion of camera tricks it is possibly better to consider a few specific effects and the details of manipulation necessary for their accomplishment.

In many amateur films the effect of a movie within a movie might be useful. This involves the use of a double exposure, since it is impractical to actually photograph an audience as it watches a projected picture. A projected picture of reasonable size is too dim to be photographed, even if certain necessary synchronizing of the camera and projector were accomplished.

The first exposure is that of the projected picture which it made in the following way: The camera is prepared by

installing a mask which is placed immediately in front of the aperture plate. This mask can be made of thin metal, black paper, or other similar opaque material affixed in a position by adhesive tape so that a rectangular aperture is made in the proper position that the "projected" picture is to occupy. In most instances, this position would be in the center of the format above the middle horizontal axis. This would give plenty of room in the frame area below the "screen" for the audience to appear. Actually, in the camera this smaller rectangular opening must be placed at the bottom of the regular aperture, since the image is inverted by the objective. (With the Cine Kodak Special this masking would be done by one of the regular double exposure masks, slightly altered. One of the horizontal half masks could be filed in on either side to make an opening of the proper proportions.) With the ordinary cine camera, the mask is installed by removing the lens and working when the spring is unwound and the shutter may be rotated to an open position.

The camera finder is then marked off to correspond to the mask which is placed in the picture aperture. This may be done by comparing the finder image with the image thrown by the lens on a piece of ground film (a piece of leader from processed film) which is slipped in the gate. The use of ground film in the gate of the camera (with shutter open, spring unwound) is very helpful for cases of this sort. A small dental mirror is a great aid since the image on the film must be



*Print from a 16 m.m. film illustrating a "split stage," or dual role shot*

viewed from the side. Still better is the use of a small 45 degree prism which has been finely ground on one face. With this, the image is viewed on the ground surface of the prism, instead of on the ground film.

When the mask has been installed and the finder properly marked, the camera can be loaded and the scenes of the "projected" picture photographed. To eliminate the necessity for editing the finished double exposure, the scenes of the "projected," or secondary picture as it might be called, are photographed in sequence, any necessary titles being photographed on location on a blackboard. Care is taken to keep the pictures and titles within the restricted area of the secondary picture mask. At the completion of the secondary picture the camera is unloaded and the reels are re-wound in absolute darkness, thus making them ready for the second exposure.

The mask in the camera aperture is removed, but the markings on the finder are allowed to remain in place to assist

with the second exposure. The audience is placed in the proper position in the room at which the "showing" is supposed to take place. The arrangement of the scene is just about the same as if an actual show were going to be projected. However, instead of the usual white projection screen in front of the audience, a black screen is put up. This black screen is just the size of the proposed "projected" picture and may be made of black cloth, black roofing paper (non-glossy), or any other material which will reflect very little light.

The camera is then set up in the back of the room, on its tripod, and lined up by the finder so that the field of the "projected" picture coincides with the black screen. This lining up involves consideration of several factors. The camera must be placed at the proper distance from the black screen and when so placed the heads of the audience must be in a position to appear below the screen and to either side. However, the heads of the audience must not be in a position to be

silhouetted against the black screen, for in that case the finished double exposure would present an audience of transparent heads through which the screen picture could be viewed easily. Such a phenomenon would be very valuable in real life in some cases, but would be a bit annoying for our present endeavours.

The audience is then lighted in such a way as to resemble the actual effect during a projected motion picture. Most of the light is from the top and sides with very little front lighting. (Front with respect to the camera. Actually the light would be on the backs of the audience.) Care is taken that no "spill" light falls on the black screen, for through the use of this screen all necessity for masking in the camera aperture during the second exposure is eliminated.

The second exposure can then be made. The previously exposed and re-wound film is threaded in the camera and the audience is photographed. The camera must remain motionless throughout the long scene. If the camera is equipped for hand cranking, it is well to operate it by this means if the length of the secondary picture is longer than the capacity of the spring motor. If hand cranking is not available, the camera can be run until the spring is nearly run down (It should not be allowed to run down completely,) and then stopped to wind the spring up again. Great care should be taken that the camera is not moved during the winding.

When the previously exposed film has been all run through the camera for the second time, recording the image of the audience, the double exposure is complete and the film may be processed. But here is a very important point, if the double exposure is to be a success: It will be seen that, of the total area of the normal frame or format, only the area representing the projected picture will receive a normal exposure. The audience, to give a natural effect, will be given an exposure less than normal, and the remaining part of the frame area representing the walls of the room on either side of the screen will receive practically no exposure. Thus, if the film is processed in the ordinary manner by processing machines which are

arranged to compensate for over and under exposure, the double exposure will be compensated as if it were very much under exposed. The obvious result will be that the image of the "projected" picture will be much too light.

When the film is sent in for processing, then, it should be sent with special instructions to the laboratory to advise the technicians of the nature of the exposures and of the fact that the film should receive processing for normal exposure on the small screen portion. Also, the reel should contain nothing but the double exposure scenes. The laboratory cannot be expected to give special attention to one portion of a roll and then allow the processing machine to operate normally on other parts. If the negative-positive system is used, no difficulties will be encountered and the film may be processed without special instructions.

### Dual Roles

Perhaps the most spectacular use of double exposure is in "split stage" work wherein the actor takes two parts. The effect is quite familiar, since it is used frequently on the professional screen. But it is a device of never failing interest. Furthermore, it is a very useful device in dramatic films of a psychological nature when a dual personality is shown. One can imagine that Robert Louis Stevenson, had he the opportunity of becoming an amateur movie maker, would have made good use of the "split stage."

This type of double exposure can be accomplished by the ordinary cine camera with some difficulty and, although the special cameras that are equipped to run in reverse are a great help in assuring the best results, we shall consider the use of the ordinary camera. It is obvious that several of the necessary manipulations described below are eliminated when the special cameras are in use.

The important accessory for "split stage" photography is a masking device. The masking can be done inside the camera before the aperture, as in the previously described movie-within-a-movie effect, or in a matte box which is attached to the outside of the camera. Since it is necessary to have a very accurate match-

ing of the masks, the matte box system is probably the most satisfactory. (When the masks are placed inside the camera with precision as in the Cine Kodak Special, their use is recommended.)

Ordinarily the frame area is divided in half for the double exposure. One side is left open while an exposure is made with the actor going through his part. The film is then rewound with the lens covered, the mask is changed from one side to the other, and the second exposure is made while the actor goes through his other part. A little timing with a stop watch or film meter will synchronize the actions.

The camera is set up on the scene on a rigid tripod, the lens focused and the diaphragm set. The matte box is then attached in such a way that it will not be moved by ordinary handling. From then on to the finish of the double exposure, the camera must remain absolutely stationary, any winding of the spring or loading and unloading of film being done with extreme care.

The mask is made in the following manner: A piece of black paper (the kind that comes in packages of cut film) is fixed over the opening of the matte box by a strip of adhesive tape placed along the top. This serves as a hinge and the piece of paper may be turned down to cover the matte box opening or it may be turned up, leaving the opening unobstructed. Then with a pair of scissors the division line is cut by shearing the paper at the desired place. (Usually a vertical straight line in the center, but it may be irregular or on a diagonal.) Then the mask consists of two halves, with perfectly fitting edges, either side of which may be turned down to serve as a mask or up to leave its side of the matte box unobstructed.

One side of the mask is turned down and held in place by adhesive tape while the other is held out of the way. The camera is loaded and the first exposure is made. As a guide to the actor, a chalk mark is put on the floor to indicate the dividing line over which the actor must not extend any part of his body. An accurate record of the footage meter readings at the start and finish of the scene

must be kept and intermediate footage readings corresponding to various cues in the action are valuable.

At the end of the first exposure, the camera is stopped and the lens covered completely. (A piece of black paper entirely covering the matte box opening will do.) Then the film is completely run through to the end when the camera is unloaded. The roll of film is rewound in a dark room and re-threaded in the camera. The footage indicator is carefully set and, with the lens still covered, the film is run off until the footage meter indicates the start of the double exposure scene. Now the lens cover is removed and the "split stage" mask is changed by turning down the open side, matching it carefully with the side that was closed during the first exposure, fixing it firmly in place with adhesive tape, and then turning the other side up out of the way. With these operations completed, the second exposure can be made in the same way as the first.

When the special cameras are used, of course, the film need not be run completely through and rewound in the dark room. The camera mechanism is merely turned backward, with the lens or shutter closed, until the footage meter registers the start of the scene.

A few details should be stressed, if this special effect is to be successful. The camera must not be moved so much as a fraction of an inch during the whole exposure. The aperture of the lens should be *f*.5.6 or larger, preferably larger, to avoid any division line showing in the center of the scene. When possible, the exposure should be made against a background which contains a vertical line, such as a room corner or door jamb, in the region of the dividing line.

The illustration shown here is a frame enlargement of a scene from Robert Louis Stevenson's "Markheim" produced by the English Club of Stanford University. Note the use of the dark jog in the set as a background against which the dividing line becomes indistinguishable under the closest scrutiny. This scene was made with a stock model camera without any attachments other than the matte box.

(Continued from Page 183)

has clearly defined what he means. I think that the work of the Germans of which he speaks is developed along the same general direction of the work of Paul Strand, Group F 64, etc., except that it is very unimpressive in technic and often shallow throughout.

Also, I would like a precise definition of Mr. Mortensen's conception of **Taste**.

Ansel Adams.

#### For Minicams

Dear Sir:

Enclosed please find check for \$2.00 to cover subscription for one year for Camera Craft Magazine.

I think that the last six or seven issues have been the finest copies of any magazine that has ever been called to my attention particularly William Mortensen, B. H. Casebolt and Ansel Adams articles, inasmuch as those articles tell you exactly how to get the same results as they do, instead of the lengthy articles and discussions on what is Art or Pictorial Photography.

How about getting William Mortensen to write a series of articles on Miniature Camera Photography?

Very truly yours,  
Joseph H. Arnold.

Mr. Mortensen has already agreed to write for the Miniature camera user upon the completion of his present series of articles.—Ed.

#### Regional Salons

Dear Mr. Young:

Having read with much interest Mr. Rittase's article in the February issue of Camera Craft and your editorial on the subject of the Regional Salon, I can not help but voice an emphatic "Aye" to the question.

There is no doubt of the remarkable increase in pictorial photography and the activities of the photographic clubs in offering eminent speakers who impart to the memberships a measure of their enthusiasm, as well as the courses offered by the clubs and by the University of California, Extension Division, are in large measure responsible.

As a member of the Golden Gate Leica Club, I have noticed a change in type and quality of work which is little short of astonishing, and this is not alone a personal observation. Judges of our monthly competitions have remarked upon it in no uncertain terms. This must be true of other clubs as well. A healthy spirit of competition will accomplish wonders.

What better way, then, of increasing interest and stimulating superior work than the regional salon. It will also bring out the individual worker with no club affiliations, who will in many cases give the club-member "something to shoot at."

Personally, I feel that the number of prints hung should be restricted and that, if possible, not more than one or perhaps two prints of any competitor should be accepted. In addition I feel that no competitor should submit more than three prints at the outside. He should take advantage of the criticism of someone in whom he has faith as a judge in the selection of the prints to be submitted and thus lighten the work of the Salon Judges.

The clubs should back a regional salon to the fullest extent, and undoubtedly will, if the idea takes hold, encouraging and stimulating their members and seeing to it that really meritorious work is presented. It is also up to them to see that the aspiring pictorialist whose work is not hung does not become discouraged.

The idea that a national salon be held for which only prints hung in regional salons would be eligible is excellent and is deserving of serious consideration. The Photographic Society of America should certainly find such an undertaking well worth their efforts.

Raymond B. Collard.

#### About Salons

Dear Sir:

Mr. Rittase's article is a challenge to thought for all interested in Salon work.

Insomuch as he mentions the Detroit Industrial Salon by name, of which Salon the writer was Chairman of the Hanging Committee, the urge to comment is too strong to resist.



The following are my personal opinions but I am sure they are shared by the rest of us in Detroit:

I see no reason for fear because a better 20% of the prints stand a chance to be hung in the Salons of today. This is as it should be. The Salon is the great judging ground, the testing flame by which one may have his work evaluated. True, one may feel at times that a particular jury had "funny" ideas, but if one will maintain a sane attitude, realizing that acceptance or rejection at one Salon but represents the opinion of that jury,—he finds the Salons the final, infallible means of testing his work.

If, however, Mr. Rittase objects to the present methods because a large group of the better workers send the same prints over a period of years, then I, too, agree that an obstacle exists for those arising in the ranks whose photographic reputation had not as yet been made.

I think it might be a task for the Photographic Society of America to take up, if it develops that the Society is representative of American pictorial workers. A Salon Committee representative of the International American Salons might well decide that a print may circulate amongst American salons for a period of **one** year after its first hanging. Thus a constant procession of new work will come from the hands and brains of the better work-

ers—and if not—the opportunity is present for the rising workers to place their prints.

I see no harm in the increasing numbers of American Salons. I believe the matter will take care of itself. Salons will come and go. The better ones will remain.

We in Detroit are heartily in favor of doing something for the sender of prints which must be rejected. I will take the responsibility of promising that every rejected print from the coming second Detroit Industrial and the third Detroit Pictorial Salon will show on the back of the rejected prints the judges' vote to indicate the margin of failure to hang the print. Judges' comments will also appear on such prints as they may care to comment upon.

The judging will be by the electric push button method; a judges' vote to accept will flash a light on a board, the board will not be visible to the judges, and tallies will be kept by a secretary. No conversation—no arguments.

One might interpret Mr. Rittase's last paragraph as mild axe grinding. If so I offer him both cooperation and organization in Detroit to accomplish an objective which should be our one standard—"The Salon as the hope of photography—the melting pot—a game, to be played by sportsmen."

N. E. Dewes.

## AMATEUR CONTRIBUTORS

(Continued from Page 189)

E. C. Gillett  
Miss Jeannette Greene  
Dr. A. H. Hauber  
E. A. Heath  
Johanna E. Heim  
Stephen G. Hust  
A. Geary Johnson  
Stanley R. Jordan  
P. A. Kinsey  
Roy Komm  
D. Welty Lefever  
W. Dovel Le Sage  
Gilbert E. Leyden  
A. H. Lomax

J. W. MacBride  
M. Margossian  
Lewis P. Mercer  
Richard H. Mercer  
M. Moskowitz  
Don Kirby Oliver  
R. W. Olson  
Edward Paloniemi  
Harry Parmater  
G. A. Peake  
John A. Powell  
J. G. Princell  
D. J. Prudhomme  
Frank X. Reilly

W. C. Rodgers  
F. L. Rogers  
Donald H. Ross  
J. W. Schuler  
Alajos Schuszler  
B. H. Shepley, Jr.  
Thomas M. Thomson  
K. E. Vroom  
Carroll Waddell  
Mason Weymouth  
Esther H. Wildman  
Wm. E. Wing  
T. W. Wright

# Selling Points - Points to Sell

**John P. Lyons**

This is the time of year, editors assemble those enticing garden photos and articles that blossom in the Spring and Summer. Magazine editors work three to six months ahead and are considering gardening subjects now. Newspaper and the more flexible weeklies, which feature garden material will buy thirty days from now. The "swanky" magazines will demand pretentious gardens—the dailies and popular magazines will feature fair to middling gardens—and some are more concerned with that backyard plot that has been turned into a beauty spot through the planting of a garden. Here they are:

House Beautiful has just been combined with Home and Field and will probably be overstocked for some time. Country Life, 244 Madison Ave., New York, want 1500 to 2000 words on the country estate sort of garden. 8x10 glossy preferred and a hit brings about \$50.00 per article. Arts and Decorations, 578 Madison Ave., New York, single photos and 1200 and 1500 words on the pretentious sort. Good rates. House and Garden, 420 Lexington Ave., New York pay good rates for single photos and profusely illustrated gardening material.

Among the popular women's magazines—Good Housekeeping, Ladies Home Journal, Woman's Home Companion, all consider garden material. Delineator have advised "No garden material at present."

The group featuring gardens include American Home, 244 Madison Ave., New York, buying single photos, page spreads and 1000 to 1500 words on gardening. Better Homes and Gardens, 1714 Locust St., Des Moines, Iowa, want 5x7 to 8x10 glossy prints only of the smaller, distinctive type of garden found in suburban sections, garden flowers, rock gardens, lily pools, fruit and vegetable home gar-

dens. Pay from \$1.00 per print up, good pictures commanding highest prices. Canadian Homes and Gardens, 481 University Ave., Toronto, Ont., insist all material be 100% exclusively Canadian. Garden Digest, 469 Great Oak Lane, Pleasantville, N. Y., is mostly a review of interesting garden material but the editor does buy single photos of flowers, garden subjects, flower gardens for the cover page. Your Garden and Home, 1900 Superior Ave., Cleveland, Ohio, pay \$1 to \$3 and 1c per word, for single photos and 1200 and 1500 word illustrated articles on garden subjects, flower culture, landscaping but all must have Ohio tie-up. Flower Grower, Calcium, New York, Your Home, 1926 Broadway, New York, are also markets for popular material.

Canadian Horticulturist, Peterboro, Ont., want single photos of new and noteworthy plants, illustrated articles, 800 to 1200 words, shorter preferred, on Canadian experience, growing and cultivating fruit, flowers, vegetables. And up in Detroit, the Mathews Company, 685 Mullett St., publish a magazine "Say it With Flowers" distributed by florists to stimulate livelier interest in flowers which uses an odd type of picture. \$5 to \$10 each for photos of professional excellence on fine flower arrangements, attractive ideas for table decoration, or for the wearing of flowers. Plus 1c per word for illustrated articles, 1000 to 1500 words, giving the facts of unique interest concerning growth, development, history of flowers and general interest articles on the care and use of plants and flowers. The Wild Flower Preservation Society, Inc., 3740 Oliver St., Washington, D. C., have about 8000 photos of wild flowers in their present collection—but will always consider query from photographers on interesting wild flower subjects.

# Club Notes

## A Pictorial Exhibit That is Different

Walter W. Bonns

What is the great bone of contention in exhibitions? Why, that's easy to answer. It's the jury of selection! Everybody knows that—everybody that ever submitted a print for hanging. Of course, the jury is not always bad; sometimes it shows rare judgment. For instance, that time at the Spoof Salon, when they hung five of my prints out of six sent in. But the jury for the Punkaloosa Pictorial Exhibit was terrible! Turned down every one of my six, and hung three of Bill Dubb's—and you know Bill never made a decent print in his life. Can't understand men like that at all.

And will it ever be different? We doubt it. Why should it be, under the circumstances given? After all, what should one expect from a judge or jury of selection but a verdict which reflects an individual or group reaction to a set of conditions presented to them? We'll assume that they are conscientious and impartial to the best of their knowledge and belief; but, excepting the rarest instances, they are bound to be biased to a greater or less degree, albeit unconsciously, solely because of their predilections. Some subjects, some treatments, appeal powerfully to one individual, while others arouse instinctive antagonism; others, again, leave him wholly indifferent. For the next individual the reactions may be entirely reversed. Yet each man is honest in his verdict as he sees it. Browning knew whereof he spoke:

"Now, who shall arbitrate?

Ten men love what I hate,  
Shun what I follow, slight what  
I receive;

Ten, who in ears and eyes  
Match me: we all surmise,  
They this thing, and I that; whom  
shall my soul believe?"

So, if we can't be poets with Browning, at least let us be philosophers and resign ourselves to the fact that an exhibit hung by a jury of selection is their exhibit.

It's what you agreed to when you submitted your prints to them. Whether or not they are capable judges in your opinion, that's something else again!

But there are other angles to this exhibition problem that are giving some of the heavy thinkers pause. Can't we have an exhibit that represents the contributor's judgment of excellence, and at the same time be assured of a high exhibition standard? Also, can we, in these days when every one must squeeze the dollar until the eagle screams, have representative shows of high quality and numerous contributors coupled with minimum expense both to the pictorialist and the organization that is putting on the show?

The answer to each of these questions is "yes," and the Indianapolis Camera Club proposes to prove the affirmation during the coming year by putting on its first invitational club exhibit.

There are a number of good features to recommend this innovation in photographic shows. First, it will reduce the expense involved, both for the contributor and for the sponsor club to a minimum—and that is something to talk about these days. Second, it is bound to be an exhibit of high pictorial excellence, because invitations are to be issued to organizations on the basis of the pictorial attainment of their members. Third, there will be sufficient material incentive for each club participating to see to it that they are represented by nothing but the best work of their members; and fourth, there will be no possible grounds for complaint on the score of print selection at the hands of a hanging committee.

The essential details governing the exhibition are as follows:

1. The exhibit will be confined to camera clubs in the United States, and it will be an invitational affair, as previously stated, invitations to be issued on the basis of the pictorial proficiency of the members of the clubs. Entries will in

all cases be made as clubs; no individual submissions will be considered.

With pictorial proficiency as the prime qualification for invitations, some consideration will be given to geographical distribution, to the end that the exhibit may show a cross section of the best pictorial work of the country as a whole.

2. Each invited club will be asked to submit a set of sixteen prints. No set shall contain more than two prints from one member. Contributors must in all cases be active members of their organizations. Contributions by honorary members shall be ineligible.

Each club shall make selection for its set in any manner that it considers best adapted to its purpose.

3. All prints so submitted will be hung. Each print in the exhibit will be judged and scored for points by a competent judge or jury having no affiliation whatsoever with any of the clubs exhibiting. The club receiving the highest total score will become the permanent possessor of a trophy to be donated by the Indianapolis Camera Club. The latter, as host, will join in the exhibit by hanging a set of prints, but will not be eligible for the trophy competition.

4. There will be no fees. The only expense involved by the contributing clubs will be the nominal one of shipping one parcel to the point of exhibit. Prints will be returned by the Indianapolis club at the close of the exhibit without further charge. A specially designed seal of acceptance will be returned with each print.

5. The exhibit will be hung under glass, and will constitute the main attraction in the galleries of the John Herron Art Institute, Indianapolis, from May 1st to 31st, 1934. The last day for receiving sets will be April 1, 1934. Local publicity for the exhibit will be arranged.

Much is to be said for this type of pictorial display. It differs in several features from those offered in the past. In fact, the general characteristic that recommends it is that it competes in no way with the type of salon already established in other centers. It would be a futile duplication of effort merely to add another individual open or invitational

salon to those already in existence. To do so would do little but put an added strain on the exhibit budget of the individual exhibitor. That he might refuse to support another show of the kind is highly probable, judging by the falling off in contributions to some of the important shows during the past year.

Another advantage is that the hanging committee is eliminated. It may well be assumed that such clubs as will be participants will comprise seasoned workers of high rank who are fully competent to select prints of exhibition rank. Each club will then be its own jury of selection, and one may be certain that, with the competitive feature of the trophy in mind, each club will insist that its set comprise the very best work that its members are capable of doing. The contest for the trophy will put every organization on its mettle, and make for the best sort of friendly rivalry. Finally, the entrance fee is eliminated, and there is no cost to the contestants beyond the small one of shipping one parcel to the exhibit.

The Indianapolis Camera Club hopes that this new type of exhibition will meet the approval of American pictorialists through the club to which they contribute as members, to the end that this exhibit may be established as an annual, permanent institution in American pictorial photography.

The following clubs have been invited to contribute. Invitations have been based on the exhibition record of club members and on geographical distribution. Boston Camera Club, Boston Young Men's Christian Union Camera Club, Brooklyn Institute of Arts and Sciences, Camera Club, New York, Camera Enthusiasts of San Diego, Camera Pictorialists of Los Angeles, Chicago Camera Club, Cleveland Photographic Society, Fort Dearborn Camera Club, Chicago, Japanese Camera Pictorialists of California, Kodak Camera Club of Rochester, Omaha Camera Club, Photographic Society of Philadelphia, Photographic Society of San Francisco, Portage Camera Club, Akron.

#### **Taft Camera Club "Highlights"**

"Highlights," the monthly publication of the Taft Camera Club, contains an in-

teresting feature which other clubs may wish to adopt. A contact print of the prize winning picture from the club's monthly competition is tipped into the bulletin. A brief discussion of the print by the judges, and the technical details of its production also appear. In this way each member of the club receives a print of the prize winners for his personal collection. They are good pictures, too. We especially admired Mr. T. T. White's "Farewell," and it along with the other pictures shown would be good material for the Camera Craft Monthly Competition.

#### **Photo Pictorialists of Milwaukee**

The Annual Exhibit of the Photo Pictorialists of Milwaukee is being held during the month of April at the Milwaukee Art Institute. This 25 year old organization which meets Wednesday nights at the Art Institute, has inaugurated a new method of judging the monthly exhibits. This is placed in the hands of a jury of three members, a different set each month, so that all get a chance at judging. The jury, which averages its points on adherence to topic, appeal, composition, technique, etc., is always composed of one older and two younger members. Much benefit and experience in criticism is thus gained by all.

Officers for 1934 are as follows: E. T. Howell, president; P. G. Primeau, vice-president; E. A. Erickson, secretary; Richard Stanhope, treasurer; E. C. Buxbaum, A. R. P. S., print critic.

#### **Lecture on the Photography of Animals**

Dr. Spencer R. Atkinson, D. D. S., has established an enviable reputation as a naturalist and has written on various aspects of his studies for the National Geographic Magazine and other authoritative journals. For some time he has maintained a wild life sanctuary on his Pasadena estate, which is completely wired for the maximum efficiency in night photography of its inhabitants. He has obtained some remarkable results both in motion picture and still photography.

Under the auspices of the Golden Gate Leica Club Dr. Atkinson will lecture on the photography of wild life, and illustrate his lecture with some of the marvelous motion pictures and slides which he has made.

The lecture is free of charge and open to the public and will take place Wednesday, April 4th, 8:15 P. M., at the Pacific Gas and Electric Company's auditorium, 245 Market St., San Francisco, Calif.

#### **Scope of All-Ohio Salon Expanded**

The Camera Pictorialists of Columbus announce that the scope of the All-Ohio Salon of Pictorial Photography, which has been held here during the last three years, has been widened, and the 1934 Salon will be known as The North American Continental Salon of Pictorial Photography, including the All-Ohio Salon.

The Continental Salon will be held in Columbus during the month of November, and the All-Ohio section will be circulated among camera clubs and art galleries of the State after that, as has been done in the past.

Entry forms with detailed instructions for the 1934 Salon will be ready early in the spring. Anyone desiring information or an entry form should write to William Clayton Pryor, the Salon Director, 60 Latta Avenue, Columbus, Ohio.

#### **U. C. Extension Courses**

Five new classes in "Photography" will be started during March by P. Douglas Anderson, University of California Extension Division instructor, according to announcement made this week.

In San Francisco, Anderson will start a class in "Photography: Principles and Practice" Monday evening, March 19, at 7 p. m. On March 20, at 7 p. m., he will inaugurate a course in "Photography: Darkroom Technique." On Thursday evening, March 22, at 7 p. m., he will inaugurate an advanced class in "Photography: Principles and Practice." All San Francisco classes will be held in the Extension Building, 540 Powell Street.

In Oakland, Anderson will inaugurate a course in "Pictorial Photography" Wednesday evening, March 21, at 7:15 p. m. Friday evening, March 23, at 7:15 p. m., he will start a course in "Advanced Photography: Principles and Practice." Oakland classes are held in the Extension Center, 1730 Franklin Street.

Announcement is made by the University of California Extension Division of new courses in "Art Analysis for Photog-



raphers" to be started during March in Oakland and San Francisco under Hamilton Wolf, well-known artist. A San Francisco section will be started March 21 at 7 p. m. in the Extension Building, 540 Powell Street. An Oakland class will be started March 13 at 7:30 p. m. in the Extension Center, 1730 Franklin Street. The courses will be concerned with fundamental principles of art analysis with application to photography. Wolf was formerly head of the art department of the University of Washington.

#### **Cleveland Photographic Society**

The Cleveland Photographic Society has inaugurated a section for "Minicams" that is designated as the Miniature Negative Division. The group holds bi-monthly meetings and is attacking the problems of the small camera user with great energy. The activities of the club as a whole as announced in Thru The Darkroom Door, the club's monthly bulletin, are numerous and interesting, with weekly Wednesday evening meetings at which a lecture or demonstration constitutes the main part of the program. Such an active organization should be making a bid for one of the Camera Craft Trophy Cups. How about it—you Clevelanders?

#### **Competition**

We wish to announce that starting March 1st, the Marshall Field & Company Photographic Section will hold an amateur photographic competition for all amateur photographers. There will be four classes of entries as follows:

The best print not enlarged.

The best enlargement—Baby or portrait class.

The best enlargement—Scenic class.

The best enlargement—General class.

Three prizes will be awarded in each class, and the grand prize will be awarded for the best picture in all classes.

The prizes are as follows:

Grand prize, \$25.00 in merchandise.

Four first prizes, \$10.00 in merchandise each.

Four second prizes, \$5.00 in merchandise each.

Four third prizes, \$3.00 in merchandise each.

A public Salon of the winning and honorable mention photographs will be held in the Marshall Field & Company store, starting June 15th. Entry blanks may be had by sending a stamped addressed envelope to Marshall Field & Company, Photographic Section, 121 North State Street, Chicago, Ill. Last day for receiving prints, May 30, 1934.

#### **The Fourth Syracuse Salon, and the Camera Club of Syracuse**

More than seven hundred prints were submitted for the Fourth Syracuse Salon, from nearly every part of the world. The great number of prints made it rather difficult to select the very best from a pictorial standpoint, as the quality of all prints was extraordinarily high.

The Jury of Selection, consisting of Alexander Leventon, F.R.P.S., Rochester, John F. Collins, F.R.P.S., Syracuse, and Hibbard V. B. Kline, of Syracuse University, spent one entire day going over this large number, and their work should be appreciated, and their judgment accepted by everyone. Two Hundred Prints were selected for the salon. And we would like to say right here that those prints make up the finest salon and exhibition that Syracusans have ever had the privilege of viewing.

The Camera Club of Syracuse has again awarded TEN CERTIFICATES OF HONOR to the Ten Exhibitors showing the most outstanding achievement in their work in the salon. These ten are as follows: Dr. Harry B. Wright, Philadelphia, "A Life Is Saved"; Dr. D. J. Ruzicka, Jackson Heights, "The Magic City"; Dr. George C. Poundstone, Chicago, "Galilean Fisherman"; Alexander Keighley, Steeton, England, "The Ox Carts"; Leonard Misonne, Gilly, Belgium, "Dans la Foret"; Gerald Cross, Lathrop, Mo., "Somber"; F. R. Ratnager, Bombay, India, "Light and Shade"; Dorothy Wilding, London, "Poise"; Edwin Bolan, Hinsdale, Ill, "Harold Krentzberg"; N. Matsumoto, San Francisco, "A Study in Line."

The Camera Club of Syracuse desires to thank all those who submitted prints, and all others who aided in making the salon a success.

# Notes and Comments

## Clarence H. White School—Summer Course

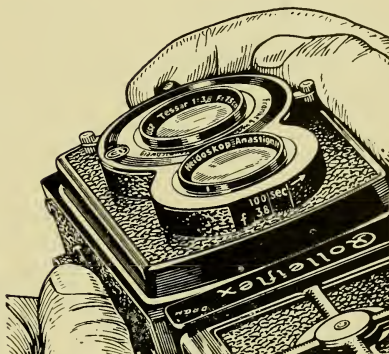
The Clarence H. White School of Photography announces that the Nineteenth Summer Session will open on Monday, June 4th, and run until Friday, June 29, 1934, at 460 West 144th St., New York, N. Y. This course will replace those held in Woodstock, N. Y., in previous summers. The prospectus outlines a very complete course covering all important aspects of photography. No previous photographic experience is required of those desiring to enroll. Full information may be obtained by writing to the above address.

## Viscose Sponge

The Viscose sponge is composed of artificial silk, is entirely lint-less and has very great absorption power. This sponge is gaining wide popularity in surface drying all types of photographic materials and is also highly recommended for bromoil work. Those working with miniature negatives will find it excellent for bringing about a final cleaning of the film just before drying. For full information write to Willoughby's, 110 W. 32nd St., New York, N. Y., or inquire of your dealer.

## Agfa Ansco Offers New Film Cabinet

The Agfa Ansco Corp., Binghamton, N. Y., has just announced their new 1934 Film Cabinets for the counter display of roll film. The new cabinets take only  $6\frac{1}{2}'' \times 7\frac{1}{2}''$  of counter space, and carry the picture endorsement of famous Hollywood Movie Stars. A postcard enclosed with each assortment will bring a window display emphasizing the tie-up between the Hollywood Cabinet and the Hollywood Stars and also the Agfa-Fox counter display which offers free autographed pictures of Fox stars with every roll of Agfa film. Here is a fine sales promotion plan. Write for full information to the above address or to the nearest Agfa Ansco branch office.



## Rolleiflex

The cut shown above illustrates one of the convenient features of the new improved Rolleiflex camera. Namely: the fact that the diaphragm stops and the shutter speed settings are both visible from the top of the camera. This means that both the aperture and the shutter speed can be set without moving the camera from the taking position. The new Rolleiflex is a camera of the highest precision in workmanship combined with great convenience and flexibility in use. For full information write to Burleigh Brooks, 127 West 42nd St., New York, N. Y., or inspect the camera at your dealers.

## Robert M. Lynn, Edwal Representative

The many friends of Robert M. Lynn, much traveled west coast representative for a number of important photographic items, will be pleased to learn that he now also represents the Edwal Laboratories, 3420 Indiana Ave., Chicago, Ill. The Edwal Laboratories are manufacturers of high grade organic chemicals and have lately been devoting much attention to the production of the fine grain developing agents, Paraphenylene Diamine, and Glycine. To obtain a supply dealers should address Mr. Lynn at 2819 Rose Ave., Pasadena, Calif., or the laboratories at the above address.

# Classified Advertisements

Items advertised in these columns may be purchased C.O.D. subject to examination and C.O.D. subject to ten days free trial if sent by express. If in doubt, safeguard yourself.

## OUTFITS FOR SALE

◆Leitz Hektor 2:5 lens for Leica model D or F. New condition, \$40.00. Also Valoy Enlarger. Gerald Cross, Lathrop, Mo.

◆Kodak Auto Focus 4x6 Enlarger, practically new. Cost \$33.00, sell for \$17.50. T. Major Edgecomb, State Theater Bldg., Red Bluff, Calif.

◆Back numbers Camera Craft and American Photography. Photo Miniature photo books, large stock. 6x13 cm. F:4.5 lens Stereo Camera. 10" Collinear lenses, other equipment; consider trade. Also 5x7 plate holders cheap. F. J. Misch, 2823 N. Racine Ave., Chicago, Ill.

◆Nearly new folding roll film Palko camera, Ilex F:4.5 lens, with ground glass focusing, 3 picture sizes, and many other features. Finest construction throughout. List price including case \$91.50; sell for \$50.00. R. B. B., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆Universal Movie Camera, 400 ft. professional model, Universal tripod, complete, splendid condition. B&L F:3.5 lens, hood \$100.00. Camera only \$65.00. Tripod only \$40.00. Quentin Colburn, Box 43, Keene, Tex.

◆5x7 Home Portrait Graflex with f:4.5, 10" Zeiss lenses, cut film magazine, Zeiss filter, sun shade, fiber case, all like new, over four hundred dollars worth for \$98.50. William Jacobs, 572 Crestline Drive, Los Angeles, Calif.

## POSITIONS WANTED

◆By young man twenty-one, as apprentice in established Portrait Studio in San Francisco or vicinity. Have vital interest in Photography. High School graduate. Character references. Charles D. Pelton, 1308 Taylor St., San Francisco, Calif. Telephone TUXedo 2496.

◆By young widow experienced in oil and water coloring. Will do piece work. Good references. Prefer San Francisco Bay region. Mrs. Louise Peterhans, 1539 Encinal St., Alameda, Calif.

◆By young, ambitious, cultured, photographic artist. Graduate of art school. Former photo-lite artist for Warner Bros. and United Artist films. Expert individual attention on commercial or studio work. Julia Bierbaum, 828 Quintara St., San Francisco, Calif. Phone Overland 3072.

## LEICA OWNERS

Trade in your Leica outfit on the new F with Summar F2 lens. Liberal allowance. Send for description of new, portable copying device. Wanted. 90 mm. F4 lens; Leica projector. For sale: E outfit with Elmar F3.5; Hektor F2.5 lens.

**MINIATURE CAMERA SHOP**  
1600 Post St., San Francisco

## LEICA-USERS

Send for prices and description of accessories made by: SAC, 1600 California Street, San Francisco, California.

## OUTFITS WANTED

◆4x5 R. B. Auto Graflex with or without lens. Give full description and price. R. L. Smith, Box 117, Fort Lewis, Wash.

◆Small Rolleiflex (late model) with F:2.8 lens. Grace Greenway, 4324 Maryland, St. Louis, Mo.

◆Series D Revolving back Graflex 4x5, Tessar or similar lens, excellent condition essential. State cash price. R. A. Fraser, 301 Westlake Square, Seattle, Wash.

◆New condition 8¼ or 8½ inch, f:6.8 Anastigmat lens in shutter. Describe fully. Best offer accepted. Earle's Studio, La Porte, Ind.

## FOR SALE OR EXCHANGE

◆5x7 Press Graflex, with or without 8½ inch B&L Zeiss Tessar; sole leather case; positively new condition. Will sell or trade. Need 8x10 or 5x7 view; 9½ or 10 inch 4.5 portrait lens; Ventiles. Frank Lee, 800 N. W. 34th, Oklahoma City, Okla.

## STUDIOS FOR SALE

◆Studio in the heart of the Gold Mining District. Big pay rolls, etc. Must sell. M. J. Pierce, Jackson Studio, Jackson, Calif.

◆For sale or lease, photo studio, 5 living rooms, good skylight. 20,000 pop. Rent \$40.00. Would exchange for 1 or 2 acres near good city in California. John L. Parker, 1920 Macdonald Ave., Richmond, Calif.

◆Complete studio. First class condition, low rent, good business and location. Price less than one-half inventory. Good community, Pop. 9000. Dale Murray, Baker, Ore.

## LENSES FOR SALE

◆Dallmeyer 14" F:4 Portrait Lens with Luc Shutter. Good condition. List Price \$170.00; will sell for \$80.00 cash. Wesley Swadley, 233 Post St., Room 605, San Francisco, Calif.

◆8x10 Verito F:4 in studio shutter \$45.00; 6½x8½ Velostigmat F:4.5 Series II in studio shutter \$42.50; 5x7 B & L IC Tessar F:4.5 \$40.00; 6½x8½ Wide Angle Lens \$15.00. Salt Lake Loan Office, 76 East 2nd South Street, Salt Lake City, Utah.

**GOOD ALLOWANCE** for Firearms, Microscopes, Binoculars, and Celestial Telescopes, on any photographic equipment, motion picture or still, and Bausch & Lomb Spotting Scopes, and Binoculars.

**NATIONAL CAMERA EXCHANGE**, 5 South Fifth Street, Minneapolis, Minn.

## CINEX 16 MM. FILM

Regular speed — 100 ft. \$3.25; 50 ft. \$1.75. Nonhalation supersensitive Panchromatic for night shots, interiors and exteriors 100 ft. \$4.50. Processing in San Francisco included. Send for Sample. CINEX FILM LAB., 221 Golden Gate Avenue, San Francisco.

C  
A  
M  
E  
R  
A



"Aboard the Nautilus"

17th Annual Los Angeles Salon

James N. Doolittle



CRAFT

REG. U. S. PAT. OFFICE

**MAY 1934**  
**VOL. XLI Number 5**  
**SAN FRANCISCO**  
**• CALIFORNIA •**  
**PRICE 20c**



**In This Issue**

**CREATIVE PICTORIALISM III . . William Mortensen**  
**PHOTOGRAPHS for REPRODUCTION . Robert Mackay**  
**FINE ART of PHOTOGRAPHY E. C. Buxbaum, A. R. P. S.**





"A Reserve Illustration by Underwood & Underwood"



## SUPERIORITY OF NOMIS PRINTS WINS RE-ORDERS



Amateurs are delighted with the sparkling brilliance, fine detail and rich warmth of Haloid Nomis prints. Happy, they order more.

Nomis uniformity means fewer make-overs, less waste. Profits increase. Use coupon.

The Haloid Co., Bldg. 3,  
Rochester, N. Y.

Please send 2,500 sheets,  
 $2\frac{3}{4} \times 4\frac{1}{2}$ , for this \$5.00.

Name .....

Address .....

THE HALOID COMPANY, Rochester, N. Y.

New York Office: 225 Fifth Ave. Chicago Office: 68 W. Washington St.

Los Angeles Agent, A. H. Muhl, 1121 S. Los Angeles St.

San Francisco Agent, A. H. Muhl, 222 Kearny St.

HALOID  
**NOMIS**  
NO MISS



★ GREAT PRINTS ★

FROM

*Little  
Negatives*



*with this*  
*Special* **FINE-GRAIN ROLL FILM**

**P**LENACHROME Film has long been known for a fineness of grain not found in other film. Agfa *Fine-Grain* Plenachrome carries this advantage still farther. By its introduction, the most serious limitation of small cameras has been removed, for this film produces negatives from which enlargements of many diameters can be made—enlargements of contact print quality.

Fine-Grain Plenachrome incorporates all the advantages of other Plenachrome emulsions—complete orthochromaticism, high speed, exceptional wide latitude and a special anti-halation coating. In addition, Fine-Grain

Plenachrome offers the advantages of a non-abrasion protective over-coating and an extra-fine grain.

Fine-Grain developing, while desirable, is not essential. For your convenience, most photographic stores carry Agfa Fine-Grain Tube Developer, which requires only the addition of water for use.

Fine-Grain Plenachrome is available in several sizes: FA8 (for all cameras using vest-pocket film), FB2 (for cameras using  $2\frac{1}{4} \times 3\frac{1}{4}$  roll film for either full or split-frame pictures), and also in special cartridges for Leica, Contax and similar cameras, and for the Memo.



*Made in America by*

**AGFA ANSCO CORPORATION**

BINGHAMTON, N. Y.

BRANCHES:

BOSTON NEW YORK CINCINNATI CHICAGO KANSAS CITY SAN FRANCISCO LOS ANGELES TORONTO

Please mention Camera Craft when corresponding with Advertisers



# Confidential TRADE-IN VALUES

OF PHOTOGRAPHIC EQUIPMENT

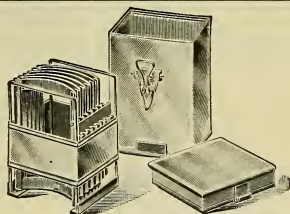
FOR  
DEALERS  
ONLY

The first book ever compiled of trade-in and resale data for the photographic industry. Mr. Earl T. Boaden — for over twenty-five years an experienced representative of wholesale and retail houses — is now completing his ten year research to help dealers make quick, authentic and profitable appraisals. Write your jobber today for full particulars — and special pre-publication offer.

You will want this knowledge!

SOLD *Only* THROUGH  
YOUR JOBBER

WILSHIRE PUBLISHING COMPANY  
3200 WEST SIXTH ST. LOS ANGELES



## DALLON-6-TANK

[The One-tank Process]

For Cut Films, Plates and Film Packs  
DAYLIGHT DEVELOPMENT

Developing, Fixing and Washing without removing Plates or Films. Load tank in dark-room and the rest can be done in daylight. Each tank holds six films or plates. They are made of brass and nickel-plated.

45x107 mm. ....	\$4.50	2 1/4 x 3 1/4 in. ....	\$4.50
4 1/2 x 6 cm. ....	4.50	3 1/4 x 4 1/4 in. ....	5.00
6 1/2 x 9 cm. ....	4.75	3 1/4 x 5 1/2 in. ....	5.75
6 x 13 cm. ....	5.75	10 x 15 cm. ....	7.00
9 x 12 cm. ....	5.75	4 x 5 in. ....	5.75
		5 x 7 in. ....	8.25

# WILLOUGHBY'S

110 W. 32nd St., New York

World's Largest Exclusive Camera Supply House

# COMING

Ernest P. Peel, A.R.P.S., whose article on "Shadowless Lighting" in our December issue created such a stir, has prepared a supplementary article giving full details of construction on the "Shadowless" lamp, with working drawings. This article is in response to numerous requests from those who have such lamps in the process of construction. We are sorry that the article could not appear in this issue, but definitely promise it for the June number.

William Mortensen's third article on the aims, objects and methods of Creative Pictorialism appears in this issue. Titles of the two other articles which will complete the series are as follows: *The Fallacy of "Pure Photography"* and *A Romantic Manifesto and a Prophecy*. To our knowledge no writer on photography has ever met with the instant and universal acclaim that has been bestowed upon Mr. Mortensen for his articles appearing in this magazine. We are proud to announce that he will write further articles upon the completion of this series, the subject matter of which will be disclosed later. However, we cannot resist the urge to prophesy with respect to part of Mr. Mortensen's future articles. The "Treat of the Year" for Minicams will be Mr. Mortensen's writings on the Use of the Miniature Camera for Pictorial Photography.

Beauford B. Fisher is a name which we believe Camera Craft readers will soon learn to treasure, for he reveals himself as an original experimenter, in other words, just the sort of man who has something valuable to say to the student of photography. His pictures have been hung in virtually all of the large Salons throughout the world. He has recently taken up photography as a profession. An example of his work appeared as a first prize in our Advanced competition for November. We pointed out that this picture was an experimental example of fine technique in the paper negative process in as much as the skin textures had been so well maintained. Mr. Fisher will describe the paper negative process in full detail in an early issue.

Edwin C. Buxbaum, A.R.P.S., whose name is already familiar to the readers of this magazine, has prepared a carefully worked out series of four articles on *Miniature Camera Technique* which we know will prove very helpful to all Minicams. The sections on films and filters are of especial value and approach the two subjects from a new angle that is most instructive.

J. G. F. Druce, M.Sc. (Lond.), R. Nat. Dir. (Prague), F.I.C., is an English scientist of international reputation not only in photography but in other scientific fields as well. His article, *Some Remarks on Infra Red Photography*, is authentic, interesting, and original.

P. Douglas Anderson, A.R.P.S., whose article on "Outdoor Portraiture" in our October issue received much favorable comment, has devised a splendid means of illustrating the various lightings that may be obtained outdoors. His article "More About Outdoor Portraiture" will appear in an early issue.

George H. Needham, F.R.M.S., whose article on "Low Power Photomicrography" appeared in our February issue is now working on a second paper which will discuss the ramifications of high power work. This paper will be of great interest to those who are doing advanced work in photomicrography.

Albert Jourdan has prepared a very instructive article describing just how he performed an actual commission for a montage photograph, "A Job of Photo montage" will interest both the professional and the amateur for the principles of montage have a wide application.

Thomas A. Wilson, M. S., has devoted much time and study to the subject of composition. He has prepared a series of three illustrated articles which we are confident will clear away much of the mystery surrounding this important aspect of picture making.

Please mention Camera Craft when corresponding with Advertisers

# Venus and Vulcan

William Mortensen

## An Essay on Creative Pictorialism

### 3. Selection, and the Function of Control

THE fact that they deal selectively with their picture material is the thing that most definitely and immediately distinguishes the Creative from the Realistic group in present day photography. It is not merely a convenient mark of difference, but a sign of diametric opposition of ideals. Since the principle of selection is so fundamental a part of the non-realistic creed, it has seemed good to devote a complete article to the exposition and demonstration of this principle. I realize that, to those who are already in accord with the Creative group, much that I shall have to say will seem a needless labouring of the obvious; but too many people are still supinely accepting the early judgment on the camera, that it is not an art medium, but simply an instrument of record and documentation.

In setting up selectivity as a basis of distinction, I am not ignoring the fact that the Realists do exert a certain degree of selection—as indeed all persons must who use a camera at all. Naturally they select subject matter, lenses, photographic materials, exposures; but all their selection is pointed toward securing a picture that shall be thoroughly non-selective—that shall be a complete objective replica, in photographic terms, of the subject. Quite different is the place and function assigned to selection by the Creative school, for whom it dominates all phases, processes and stages in the making of the picture.

Selection, it is important to realize, is not a mere artistic abstraction but something that is almost a Vital Principle, not only in art but in all the processes of life and growth. We live by means of the selective functioning of our bodies: each organ and part *selects*—from the breathed-in air, from the food we eat, from the blood stream—those things needful for its sustenance and development. Thought is a matter of selective dealing with the swift and disorderly stream of consciousness. Darwin, seeking an explanation of the evolution of higher forms of life from lower, named as the key principle Natural Selection. Life is a selective process: when we stop selecting we stop living. Selection as it manifests itself in

art is not a mere casual picking and choosing of the things that the artist likes, but an often-times laborious searching for the perfect expression of an idea. Every work of art is thus the fruit of an evolutionary process rather than a spontaneous creation. So selection in art bears a curiously Darwinian aspect. In its early stages, an art work presents a "struggle for existence" of conflicting ideas, forms and lines, wherein the artist must judge which is the fittest to survive. As the work develops, numerous variations and mutations insinuate themselves into the problem. With these again the artist must assert his god-like prerogative, relentlessly destroying the weak, the common-place, the superfluous, the irrelevant. Often the original aspect of the conception is completely altered.

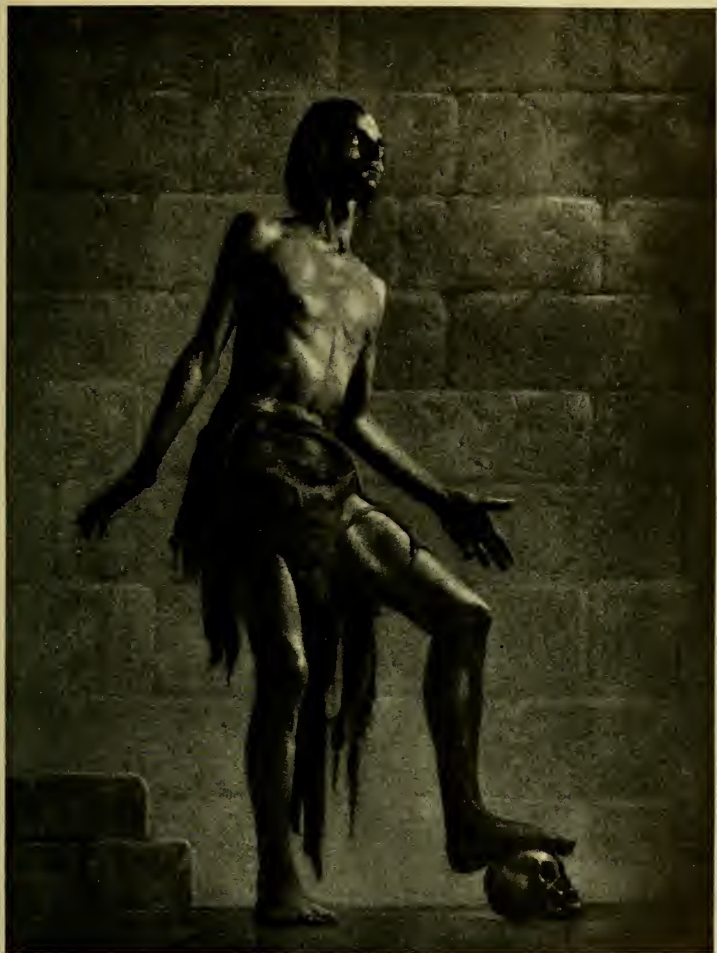
The selective process is inseparable from all artistic endeavor because art functions in terms of significant unity while reality manifests itself in terms of outwardly meaningless diversity. The artist senses, behind the shifting, confusing world of appearances, a fundamental unity, relation, meaning and purpose. To make these *evident* is his task. His tools are few and inadequate; his materials, the gaudy gimcracks of everyday sense experience. With these scant tools and these banal materials he must try to give an intimation of the entities he has glimpsed behind the curtain. So in dealing with his materials he works always from the accidental to the significant, from the complicated to the simple, from the many to the one, from the thing to the symbol.

The camera's manner of "seeing" is vastly different from the eye's. While the visual angle of the eye is much wider than that of the camera, its range of attention is much narrower. Thus the literal vision of the camera greatly exceeds that of the eye, which is inclined to see only that which it wishes to see, noting the essential points and ignoring or subordinating the minor ones. The camera, however, diligently records trivialities along with important matters. But, in concentration and focusing of mental energy, the artist's manner of seeing surpasses the normal manner as far as the eye surpasses the camera. Hence it is *doubly* imperative that photography learn to avail itself of selection to the same comprehensive degree that the older arts do: by this it must stand or fall as an art. Otherwise we must concede that the camera has no more artistic potentiality than a gas-meter, and that its finest flower is a photostat.

Leaving aside such obvious (and to this article scarcely relevant) fields for selection as the choice of subject matter, photographic materials and equipment, the principal stages in the creation of a picture that are amenable to selectivity are the following: (1) dealing with the subject, (2) lighting, (3) projection printing, (4) special processes, (5) final adjustments. Selection at the various stages is accomplished through the use of *controls*. Control in the past, and in the common mind, is largely associated with the removal of warts, wens, wrinkles and similar deformities which afflict unhappy mankind, and with the correction of over-exposure and under-development and other problems which afflict the careless photographer. The true function of control, however, is not this negative one, but a positive *creative* one of building a picture through selection.

Let me touch briefly on the function of control as it is manifested in each of the five stages just enumerated. The posing of a model involves





*"Lazarus," V*

*William Mortensen*



delicate psychological problems. The status of the photographer is somewhat that of a stage director: while he dominates the situation, he must manage to create and maintain an emotional *rapprochement* and sense of cooperation between himself and the model. A purely passive model, no matter how accurately he or she follows direction, is limited in usefulness, and a disinterested model is, of course, quite hopeless. But when this understanding does exist, there sometimes occurs that happy experience of an intuitive flash in which the model spontaneously creates the very thing that the artist has been groping for.

Lighting control, of course, goes far beyond the purely mechanical requisite of providing adequate illumination. It governs the tone value of the subject relative to the background, and determines whether a picture is high or low in key. Emotional and dramatic qualities, as well as mood, are largely established by lighting. It also bears an important relation to composition: the changing of a light may completely alter the balance and emphasis of a picture.

Control during the process of projecting the negative is accomplished in several ways. Through local printing are achieved delicacy of drawing, the precise placing of accents, and the corresponding elision of non-essentials. Through "dodging" the accurate distribution and balance of tone is secured. Through distortion, general or localized, forms become more expressive and escape from purely literal connotations. Through montage fresh emotional values are created by the repercussion on each other of the emotional associations of two or more images.

Certain special processes recommend themselves because of their amenability to control. These are bromoil, the paper negative, and carbro. Of the three, bromoil is the most subject to control and carbro the least. Indeed the possibilities of control in the bromoil process are almost unlimited: local values may be freely altered, distracting detail deleted, significant lines emphasized, and backgrounds added. In respect to control, the paper negative is but slightly more limited than bromoil.

The final operations of control embrace sundry mechanical and chemical adjustments made on the finished print or transfer. Of these the simplest and most generally practiced is the operation of "spotting". Here likewise are included various toning processes: Russian crayon sauce, dry-pigment toning, and local chemical toning. Mechanical or chemical intensification of high-lights also may be employed at this stage. Analogous to the above methods of control, which are applied to prints, is the "pouncing" with soft ink on a freshly pulled bromoil transfer. Control at this stage should properly limit itself to adjustment and refinements of a structure already well established. Too drastic control at this point is apt to be disastrous.

In addition to these five stages of control, there is a sixth control—a sort of super-control that dominates the selective process through all the operations of making a picture. This is the *picture idea*. Toward the concrete realization of the picture idea are directed all the operations, processes and manipulations through which selection is achieved. The photographer envisions his picture idea in photographic terms. So in his use of controls, though he may selectively modify, intensify and eliminate, he



"Lazarus," I

William Mortensen

From Cecil B. de Mille's Production "The King of Kings"

will be careful to retain the integrity of the original image. To allow ample scope for selection he will not limit himself unduly in the matter of film, but take a generous number of variants of the basic idea. A picture idea of magnitude or subtlety will probably not attain its final form in a single "shooting". Rather, it will evolve through a number of intermediate stages, as the implications of the idea become clearer to the artist.

To illustrate the principle of selectivity in actual operation I have included a series of pictures done at various times, all of them dealing with the theme of Lazarus. The story of Lazarus, the man who was dead and four days in the tomb and then returned again to the world of living men, is one that makes great appeal to the imagination. What memories did Lazarus bring back from the grave? Was he happy or reluctant when aroused from his long sleep? Was he changed, and how did other men regard him that had been dead? It was a favorite theme of medieval painters, and such diverse authors as Robert Browning, Leonid Andreiff and Eugene O'Neil have been attracted to it. Pictorially, the idea suggests mystery, drama, and powerful characterization. Also, I discovered, it involves many problems.

The first picture will be recognized by some as a scene from Cecil B. de Mille's well-remembered production *The King of Kings*, on which I served as "still photographer". In the preparation of this production no effort or expense was spared to make it completely authentic in cos-

tuming and background. Hollywood's best talent was assembled to act the roles, and technical experts were constantly on the set to check all details. Here it might seem, was an ideal opportunity to secure a magnificent pictorial result. That such a result was far from being secured is obvious from the picture (*Lazarus I*). Although it affords a fair record of the bare facts of this particular scene, it has little to recommend it pictorially. Two things contribute to the failure: first, it is a picture of drama rather than a dramatic picture; second, various faults in composition (which I shall presently point out) are introduced by my choice of a wrong camera angle.

The first point is an important one, for it concerns a problem which always must be dealt with in presenting a dramatic subject in pictorial terms. A dramatic moment consists not only of action but of reaction. Reaction is the inevitable result of action and follows it in time. To present action alone gives a sense of incompleteness, like a snapshot of a person walking, with one foot eternally suspended in mid-air. To simultaneously present action and reaction in the same picture produces a feeling of incongruity and results often in the division of interest. Hence drama in pictures should have a passive quality, with emotion predominant and action quiescent or suggested as either on the point of beginning or just ending. In the picture under discussion, there is a subtle conflict between Lazarus' action and the reaction of the crowd in the background. As seen on the screen there would be no such conflict because the time element would there be made evident, with reaction following action.

As to the faults in composition due to my ill-chosen camera angle, they are so numerous and so patent that I will point out only a few of the more glaring ones. In the first place, the figure of Christ is awkwardly placed in the mathematical center of the picture. Compositionally, Lazarus' extended hand occupies the most emphatic point in the picture, and takes on thereby a ludicrous over-significance. The line of the drape falling from Lazarus' head is cut by the dark mass of the head in front of him. There is a bad division of the darks in the costume of the woman kneeling at Christ's feet. The static mass of heads in the background is vaguely confusing. Finally, there is a very definite dilemma as to picture interest. Which is the principal figure? Christ commands interest by his position, stature and lighting; Lazarus commands its equally by his gesture. (These reproaches, I wish to make very clear, are leveled only at my own attempt to catch the pictorial quality of this scene in a still picture, and not against the interpretation given it in dramatic terms in this truly great production.)

Discovering this print some years later "among my souvenirs", and realizing that it was a good opportunity bungled, I determined to have another try at the subject. At this time, of course, none of the elaborate costumes or settings, and none of the high-priced actors were available. So I posed a number of my friends on a Southern California hillside under a late afternoon sun. For costumes, sundry ragbags were ravished of their contents, and various portieres disappeared from their accustomed places.

Even at first glance *Lazarus II* is seen to be vastly better pictorially than the earlier effort. There is much more sense of organic relationship



*"Lazarus," II*

*William Mortensen*

ship between the various elements that comprise it, with a certain flow of line from one figure to another. The placing of the heads forms an interesting pattern. The question of dominance is more clearly answered than in the first effort. The second picture is definitely about Lazarus: lighting, placing, and the attention of the other actors make this clear.

However, it still falls far short of the potentialities of the situation. It is still conceived in a literal spirit, there is a certain smugness about it, and, all in all, it is inclined to resemble a Sunday School card. There are numerous flaws in composition. The drapery of the figure at the left is badly arranged and gives little intimation that there is a body beneath it. The placing of white drapery and arm produces a distracting V-shaped configuration over Lazarus' head. The right arm of Lazarus is so lost in shadow that it leaves him without visible means of support, and his legs are awkwardly cut at the ankles by the bushes in the foreground. The figure at the extreme right is so placed and lighted as to attract more attention than it merits. Christ's face is darker in tone than the face of the woman at his right shoulder, producing a confusion of planes.



Some of these defects could have been remedied had I wished to make a bromoil of the subject. But it so missed touching the central mystery of the situation that I determined to leave it as it was and make a fresh trial. On consideration it seemed best, since Lazarus was my theme, to omit the figure of Christ, as it was bound, no matter how much subordinated pictorially to still preempt attention. For the third venture I came indoors again, working with studio lights in front of a white background, under circumstances permitting the utmost in control. *Lazarus III* and *Lazarus IV* represent variant versions of this trial.

In *Lazarus III* is seen an attempt to compromise with the elimination of the Christ figure by simply showing his hand set in opposition to the darkness of the tomb in the lower left hand corner. This proves better as an idea than as a picture, for there is some difficulty in interpreting the unconnected hand, and the mind is apt to make an unsuccessful effort to assign it to the woman at the right. Possibly, if Lazarus' right arm had been more extended toward the lower left corner, this opposition would have been better emphasized. At any rate there is far less of a literal quality about this interpretation than the preceding ones. Giving the figures in the background slight modifications of the same pose, and placing their heads high in the picture, creates a formalized, slightly Byzantine feeling. There is one objectionable feature, eliminated in other transfers made of this subject, which I have allowed to remain in this one, because it furnishes a very clear instance of the difference between the eye's way of seeing a thing and the camera's way of seeing it. I refer to the clasped hands beside Lazarus' right ear. To the eye, at the time of taking the picture, they looked simply like—clasped hands; but the camera saw and recorded them as a sort of disembodied artichoke. Elimination of this equivocal object greatly improves the composition, not only by relieving the mind of irrelevant speculation as to what the thing is, but by taking away from the confusion of too many hands in the upper part of the picture, and by giving greater isolation to Lazarus' face.

*Lazarus IV*, though less formalized than the third version, is on the whole a simpler rendering. Concentration of interest is assured by removing the last vestige of the bodily presence of Christ, save as it is intimated by the upward glance of Lazarus' eyes. The tonal qualities are broad and simple. The lighting gives a faint hint of the mystery and wonder that belong to this moment. Despite the undetailed black of the figure at the right of the picture, it is, I believe, the best interpretation so far.

But I was, and still remain, very dissatisfied with it—the implications of the theme were so vast and my rendering of it so feeble. Thus far, I realized, I had been toying with the accidental edges of the theme and missing the center of it completely. Despite successive simplifications, my conception was still anecdotal rather than pictorial. So, for my final try at it, I determined to represent nothing but *Lazarus*—mortal man triumphant over mortality, dragged down by the grave, but lifting his face to the light. To do this, it seemed, but four things were needed: a man, an emotion, a background, and an attribute or symbol. *Lazarus V* is far from satisfying me; but at last the theme begins to speak in direct pic-





*"Lazarus," III*

*William Mortensen*

torial terms, and to grope toward something universal and symbolic instead of contenting itself with the mere telling of a story.

The future potentialities of photography, when it shall have achieved a fluent use of the selective methods proper to it, are undeniably impressive. Up to now, the principal obstacle that has stood in the way of an adequate understanding of selectivity and its application to photographic processes is the fact that too many photographers are lacking in appreciation of basic art traditions. Having arrived at their status as photographers by hard technical study, or having graduated into it from the amateur snapshotter class, they are apt, when dissatisfied with their own work, to dig deeper and deeper into technical subtleties and mechanical complications. Instead of blaming themselves, they blame their cameras, or their lenses, or their developers, and fly for help to manufacturers' catalogues and scan them feverishly like hypochondriacs on the trail of a new patent medicine. Not corrected lenses, but a corrected viewpoint, is their need; not new developers, but new ideals.

I am not suggesting that every photographer should be a graduate of the Pennsylvania Academy or of the Beaux Arts: specific art training is only to a limited extent useful in photography. What I *am* suggesting is that a knowledge of Beethoven and Brahms is perhaps more important to the photographer than a knowledge of Hurter and Driffield, and that an appreciation of Goethe may take him further than an appreciation of Gamma-factors. Let him frequently desert his dark-room for the symphony hall, the art gallery, or the library. Here he may learn the essential unity of the artist's way of doing things, and come to realize that, as a potential creator, he is the inheritor of all the up-gathered beauty that all creators before him have given to the world.

\* \* \*

Of all the ladies on Olympus (as Pompilius the Younger tells us), none had such lovely jewels as Venus. These she owed to the labours of her crochety but devoted mate, Vulcan. Far into the night he would toil in his grimy workshop, drawing out the recalcitrant gold, silver and bronze into forms of unbelievable intricacy and complexity, set with carnelian, chalcedony and chrysoprase cunningly fitted and curiously engraved. After weeks of such effort he would bring to her a basket brimming with chains, carcanets, tiaras and brooches.

"Here," he would say smugly, setting it before her, "are a few little gadgets that I knocked out in a leisure moment."

Promptly she tipped the basket over and fingered the contents critically.

"Kind of nice, aren't they?" said Vulcan, expectantly.

"Now what," said Venus, holding up something between thumb and forefinger, "is this obscene object?"

"That," said Vulcan, keeping a firm grip on his dignity, "is a chain."

"To hitch horses with?" said Venus.

"That chain," Vulcan replied, in a tone of mortal hurt, "has a hundred links, and I spent an hour on each link, chasing and inlaying a tiny pattern."

"Well, of course, your time's your own."

"But look at the detail. No one ever got so much detail in so small a space before."

"Dear me," said Venus, laying it aside. She examined other articles with obvious distaste.

"Really, Vulcan," she said at last, holding up an object that dangled, "for a married man you do have the strangest ideas."

"My dear," said Vulcan patronizingly, "I do not think you appreciate the labour that goes into each of these things. That pendant, for instance, has ten thousand separate pieces of metal in the setting alone."

"But it looks exactly like a cabbage."

"It is a cabbage," said Vulcan severely.

"Dear me," said Venus.

She glanced rapidly through the pile, laying each piece aside with an elaborate disillusioned sigh or a sadly tolerant shake of the head.

Finally Vulcan could stand it no longer. "Very well, madam," he



*"Lazarus IV"*

*William Mortensen*

said, "I shall not trouble you further. Never again will I try to make anything for you. Never."

With a magnificent gesture he started to sweep up the tangled pile.

"Wait," screamed Venus. "What is the little one on the bottom of the basket?"

"That?" Vulcan stared. "Just something that I hammered out of a bit of waste metal. I forgot to throw it back into the melting pot."

"But it is beautiful!" She swooped upon the little ornament, put it on, and surveyed herself in the glass with great satisfaction. "Beautiful," she murmured. "Darling, you are so clever." She smiled at him. "And you have such a cute smudge on your nose."

(Pompilius at this point inserts the Latin equivalent for a row of asterisks.)

"Darling," said Venus, "you have messed my hair terribly. Where are you going?"

"Oh," said Vulcan. "I just have one or two little ideas in jewelry that I want to work out."

# Photographs For Reproduction

Robert Mackay

**U**NDoubtedly there exists a great market for commercial photographs in this country. Every publication, manufacturing plant or business requires photographs of one sort or another. Many of these photographs are made by expert commercial photographers in their studios, but a great number of photographs of the testimonial sort are made by amateur or free lance camera workers who are interested in selling an occasional print.

For example, a tractor company might be interested in how their product performs in Alaska, or working on a southern levee. Possibly a paint manufacturer might be interested in photographs of attractive homes painted with his product, etc.

In the city the commercial photographer is usually working under the direction of an experienced advertising man who knows what he wants and usually gets it. On the other hand, the amateur or free lance outside of the city has very little opportunity to meet the photo-engraver or advertising man and so is dependent entirely upon his own experience for satisfactory results. It is this group of camera workers that this article is intended to help. To show how to make a suitable negative and a print that will come up to the standard of reproduction demanded by that particular publication to which it is submitted.

There are two things that every good photograph for reproduction must have, namely, sharpness and contrast. Sharpness is easily explained—it merely means sharp focus. Contrast, or tone separation, as it is sometimes called, seems to be the one thing that the average amateur fails to get into his work. Illustration No. 1 has seven tones, all well separated. Note how the lily pads are plainly separated from the water; the lawn is held a little lighter than the water and so on. That is contrast, or tone separation.

Possibly the reason that the average amateur fails to get tone separation in his photographs is because of the negative material that he uses. The



*"Old Mill Garden"*

*Courtesy Stauffer Bros.*

No. 1



standard roll film or film pack, being only sensitive to light rays of blue and violet, fails to record a separation in the tones of red, orange and green, causing a flat expanse of tone. This type of negative material is, therefore, unsuitable for reproduction work and is usually referred to as color blind.

When working for reproduction, the most satisfactory all-round negative material to use is panchromatic. Panchromatic, or all-color, as its name signifies, is sensitive to all the visible colors—blue, violet, yellow, green, orange and red. This type of negative material is now on the market in roll films and film packs, the Agfa product being called Superpan and the Eastman material Supersensitive Panchromatic. The advantages that films and plates of this type have are as follows:

Because of their color sensitiveness, especially to the green, orange and red, maximum tone separation is obtained in the negative.

Because of their great speed the lens can be used at a smaller opening, giving greater sharpness and depth of focus.

Another type of negative material that can be used to advantage for reproduction, providing there is not an excess of red in the subject, is orthochromatic film. These films are sensitive to all colors except red. Good examples of this type are Agfa Supersensitive Plenachrome, Eastman Verichrome and Hammer Supersensitive Ortho.

In using panchromatic emulsions it is possible to get sufficient separation for the average photograph without the use of a correcting filter. Illustrations No. 3 and 4, because of the short exposure and depth of focus required, were made without a filter.

However, where the increase in exposure will not handicap the worker, a pale yellow filter should be used to increase the tone separation. This yellow filter holds back the strong blue and violet light and allows the green, orange and red to be photographed in their proper proportion.

Sometimes, because of certain colors, in order to get tone separation the photographer can use a contrast filter. In the case of Illustration No. 2 the wall behind the statue had been painted a light blue-green. In order to get the proper separation between the statue and the wall, a blue filter was used on the lens. The same is true of Illustration No. 4. In order to get the tone separation between the lily pads and the water and between the lawn and water, (in illustration No. 1) a green filter was used on the lens. This green filter, transmits green quite freely, and holds back the red and blue, causing the green color of the lawn and lily pads, to appear lighter in the print, thereby increasing tone separation.

The correct filter to use can only be determined by study and experience. A filter test chart, as sold by Eastman Kodak Company, containing twelve small viewing filters mounted in cardboard, is a great help to the beginner. It is used to study the subject to determine which filter should be used and sells for 75c.

Unfortunately, space does not permit a detailed discussion of the principles of light and color and the advantages of panchromatic emulsions used with or without contrast filters. However, the serious worker should lose no time in obtaining and studying the literature now offered



No. 2  
"Alcove Italian  
Garden"  
Robert Mackay

by the makers of this modern type of negative material. *Camera Craft* will be glad to supply information regarding books now available.

A common fault among prints received for reproduction is underexposure. Very often the photo-engraver is blamed for the lack of detail showing in the reproduction, especially in the shadows. This is nearly always due to underexposure in making the original negative.

Some time ago one of our city newspapers ran a series of free golf lessons. Being an addict and Scotch I naturally was on hand for the opening lesson. These lessons were given in the early evening and the first night I noticed an amateur photographer, with a reflecting type camera, taking pictures; no doubt with the idea in mind of selling a few prints. A few minutes later a newspaper staff photographer came hurrying along, opened a small bag, pulled out a telescopic tripod, set up his camera and, getting the crowd still and placed to his liking, gave an exposure of *two or three seconds*.

Now note the difference: The amateur with a large aperture lens and a twenty-fifth of a second exposure made a snapshot, getting very little depth of focus. The staff photographer, by stopping down his lens and giving a long exposure, made a photograph for reproduction with sharpness and good detail throughout the entire group, even with the poor light available.

There are many things that enter into the calculation of exposure. The light available, the speed of the negative material used, the depth of focus required and the speed of moving objects in the picture, etc. It takes a tremendous amount of experience to tell what the correct exposure for a given subject should be.

For the amateur a good, reliable exposure meter will solve the problem and become a tried and true friend. In exposing especially when photographing for reproduction, always expose for the shadows. Should the highlights and middle tones be slightly over-exposed they can be taken care of during or after development. A good plan is to use a note book at the time of exposure, putting down the lens stop, make of film, meter reading and exposure given. After development, if the exposure time was incorrect, make an entry in the note book correcting the exposure. Note also the developer and temperature at which it was used. In this way you will avoid future mistakes and will have a record that you can consult regarding a similar exposure.

As panchromatic materials are sensitive to red light, they must be developed either in total darkness or by using a green safe light, as recommended by the manufacturer. Probably the simplest way to develop is in total darkness, by time and temperature. By using a standard developer, with which you are familiar, keeping it at 65° and developing strictly by time and temperature, you standardize your work and get a uniform negative that is certainly to be desired. Mr. Casebolt on page 15 of CAMERA CRAFT for January describes a practical means of determining developing time.

In our engraving plant we develop hundreds of panchromatic plates, always with the same procedure. After the developer is chilled to 65° and everything is placed where it can be found, the lights are switched off, the plate is slipped into a standard developer and a cover is placed over the developing tray, the cover dropping over the edges of the tray so that no light can enter. Then the red light is put on and the interval timer set to ring at the desired time. The light is then switched off and the development completed in total darkness.

Opinions vary greatly on the proper density of a negative. Some prefer a thin negative, claiming that a better enlargement can be made from a negative of this type. A great number of amateurs are content with any kind of a negative and depend on the different grades of paper to produce a satisfactory print. A standard long scale negative of sufficient density and contrast to make a brilliant print from a normal printing paper is the proper negative for those who intend to make prints for the various publications.



No. 3

*"World's Fair"*

*Robert Mackay*

After development, the negative should be carefully examined to be sure it measures up to the above standard. It is a good plan to have a master negative before you as a guide until you become familiar with the exact density and contrast required.

Should the negative be too dense from over-exposure and long development, it can be reduced by a short immersion in a bath of Farmers Reducer, or local reduction might be necessary. A sky might be too dense, possibly a white dress needs a little reducing. These things should be done directly after the negative is fixed out, during the washing period.

While there seems to be no set formula for Farmers Reducer, the following method will give very satisfactory results—A saturated solution of Potass. ferricyanide and plain hypo is made, keeping in separate bottles. For use, use equal parts, adding cold water until the solution is pale yellow in color. The stronger the color, the quicker will be the action of the reducer. In case of a very dense negative (usually from over-exposure and too long development), the negative can be placed in a



tray containing the reducer and rocked for a few seconds, then quickly rinsed under running water, repeating until the desired density is obtained. For local reduction the solution should be used quite weak. For large areas, such as a sky, use a piece of cotton wool dipped in the solution and for small detail use a small soft brush to apply the reducer, always rinsing quickly under running water after each application. The use of plain clean hypo is strongly advised, as acid hypo or an old fixing bath will cause a stain on the negative.

Every amateur has a few negatives that he could use for experimenting with Farmers Reducer. These should be thoroughly soaked in water before reduction is attempted. The time used to become familiar with this reducer will make possible prints from negatives that before reduction appeared hopelessly lost.

The market for photographs, from a standpoint of reproduction, is divided into four groups, as follows: High-grade publications printed on the best white coated paper. General magazines printed on a medium grade paper. Newspapers printed on regular newsprint and Rotogravure printing, the most natural process, in common commercial use, for the reproduction of photographs.

As the standard print for submission to a publication is 8x10 inches, usually made on glossy single weight bromide paper and ferrotyped, the average print will be an enlargement from a smaller negative. The following remarks concerning the correct print to submit to each group of publications are based on the use of a standard negative, as already described. In each case the slight loss of contrast by enlarging has been taken into consideration.\*

The high-grade publications, such as CAMERA CRAFT and The National Geographic Magazine, because of the high quality of paper, can use a fine screen in making their half-tone reproductions. The loss of detail and contrast with this fine screen of 150 lines to the inch is very small, so that the print sent to publications of this type should be brilliant but not contrasty. A medium grade of bromide paper should yield the correct print from our standard negative.

The largest group is made up of publications using a medium grade of paper, such as The Saturday Evening Post, The American Home and Country Gentleman. Because of the larger screen used, usually 120 lines to the inch, the blacks are slightly greyer in the reproductions. The highlights also lose brilliance because the paper is not so white and shiny. This causes the whole reproduction to lose some of its snap and contrast. Therefore, in submitting a photograph to this class of magazine, be sure you have sufficient contrast to offset this loss. A print made from our standard negative on contrast paper should do.

In newspaper printing the loss in the reproduction of a photograph is almost 50%. This is due to the poor grade of paper, high speed print-

---

*\*Do doubt a great number of amateurs have experienced some loss of contrast in enlarging. It is well to understand however, that loss of contrast (especially when using a condensing system) is not inherent in the enlarging process. Any such loss is probably due to inaccuracies in exposure and developing times.—ED.*





"Submarine—World's Fair"

Robert Mackay

No. 4

ing and coarse screen used in making the engravings. The average newspaper reproduction has but four tones, namely, grey (which is the highlight), a light tone, middle tone and black. So the photographer should forget the detail and see that these four tones are strong and well separated. A contrast paper is the best, fully exposed and developed.

Rotogravure printing has increased by leaps and bounds in the last few years and offers a tremendous market for photographs. One of the outstanding qualities of this process is its ability to print smooth tones and deep blacks on any grade of paper. The screen in all cases being very fine—150 lines to the inch. Be sure that your photograph for rotogravure has a full range of tones. It should be brilliant but inclined to softness rather than contrast. A print made on a soft grade of paper from our negative should be okay for rotogravure printing.

In conclusion, when photographing for reproduction, focus sharply, use a color sensitive emulsion, stop down your lens and expose for the shadows. In developing use the same developer at the same temperature. When you make your print remember that you cannot make the publication to suit your print. You must make your print to *suit the publication*.

# The Fine Art Of Photography

Edwin C. Buxbaum, A. R. P. S.

**N**OT many years have passed since any article dealing with photography as an art opened up with an apology for the impertinence of even considering such a process, an art. Photography as an art has indeed been a long time coming of age. The battle was hard won. The world of painters and sculptors, to say nothing of the ubiquitous art critic, were openly hostile to any acceptance of the product of the camera and the film as a subject for a new medium of expression. That there were grounds for their criticism and skepticism cannot be denied. Slavish imitation of other arts and incompetent use of the instruments afforded the photographer prejudiced the cause of photography for many years. As long as photography tried to imitate painting, it detracted from the special qualities which make it an art.

One cannot pick up any book on the fine or graphic arts without finding some slur or reflection upon photography as an art. Indeed, the adjective "photographic" is often enough to damn any work of art. This stigmatization of photography as an art is widely prevalent and it is about time that the art world woke up and realized that the latest of the graphic arts and the most alive is photography. It is the responsibility of all photographers who have any comprehension of their work as creative art to combat this attitude with every means in their possession. The best work must be presented to the public in the widest possible manner in collection, exhibit, and salon. This is the first of the photographer's obligations.

To endure, our work must be permanent. Survival of our art depends on the durability of our materials. No photographer would think of making his prints on proof paper because of their instability. How many of us consider that our own prints will hardly survive our own lifetime? It is sad but true, that materials must survive, must endure for the future and withstand time. There is no hope for photography as an art if we



*"Leisure"*

*Theodore M. Wurts*

17th Los Angeles Salon

do not consider this important factor. Without it, our work is but a passing expression of a fancy; a diversion that will disappear with time. Think of the added value that any picture takes on when we consider it from the viewpoint of the human being five hundred years from now. There is no reason why we should not bend all our efforts to produce this permanence. It is the obligation of art and those of us who take it seriously should consider the survival of the photograph.

Does the photographic image answer the requisites of permanence? The question is not easily answered because of our comparatively short experience. The photograph is still in its infancy. A bare hundred years encompasses the entire range of its development and present perfection. Such permanence as it has achieved has only been tested for the relatively short period of perhaps one hundred years. Nevertheless, from our knowledge of the chemistry of silver, we know that the silver image is probably a long way from the most permanent of the forms of matter.

The survival of photography as an art depends on this quality of permanence. Those of us who do not think of this factor cannot take our art seriously. The masters of our art should work in a medium which will preserve their art. Future generations should see these masterpieces as we see them today. The art called photography must take its proper place alongside of the other arts of the twentieth century. Without permanency, all is lost. To insist on one's work outlasting the century may seem like vanity but any work worth doing well is certainly worth while preserving. If Julia Cameron had made her masterpieces all in carbon instead of the silver albumen paper she and many others used at the time, we would today have a complete and fine record of her work instead of the faded prints which have come down to us from this unstable material. The control processes offer the advantage of stability besides their well known superiorities in regard to color, effect and other properties. In oil and bromoil, carbon and carbonyl, we convert the delicate silver image to one of pigment as permanent as that of the painter. Perhaps, we shall even use a different base than paper in the future. There are many reasons why a base of metal or composition may prove better than paper in years to come. The photograph of the future, for the future, will be permanent.

The obligations which photography imposes upon the artist who accepts his medium as camera and lens do not end with that of permanency. Important to the future of our art as the permanence of our work may be, there is another duty which is exacted of the photographer. Indeed, it is a corollary of the obligation of making our work lasting. In order that photography may fulfill the true status of an art, artists must make certain that their works will be of such a desirable nature that people will want to own them, hang them on their walls, and last but not least, be willing to show the appreciation that is measured by willingness to part with money.

Photography has not yet reached that state where people are willing to do this. No photographs are exhibited in shop windows as rare examples of an artist's skill. No auction of rare and beautiful photographs has yet taken place although such photographs exist. Millionaires do not collect photographs yet as they do paintings, engravings and other objects of art.

There are many reasons for this lack of collecting interest in photographic art. The photographers themselves have not educated the public to a sufficient extent to make them realize that a photograph can be a thing of beauty. The numerous salons are helping to spread the realiza-

tion of the beauty of the photographic print but the education of the public is still in an elementary stage. The salon has a definite and important place in this awakening and furnishes the main source of contact between photography and the public.

Perhaps, the greatest reason why photography has had such a hard struggle to attain the status of an art has been because, we, the pictorialists, have failed to recognize the masters among us. How many of you have collections of prints of the leaders of our art? Who spends twenty dollars a year acquiring exquisite bits of beauty that may never be equaled again? Not many, we may be sure. Let us spend less money on equipment and more in prints. The number of pictures purchased at salons is woefully small. This is particularly pathetic in view of the fact that most prints are very reasonably priced. Ten dollars is not too much to pay for a print that will be worth hundreds some day in the future. The opportunity of buying masterpieces of photographic art is with us today. Prints that are available for a ten dollar bill now are going to be priceless rarities in the future. This may seem like a rash prophecy but it is only reasonable when one considers the growth of photography and is appreciative of the beauty of the print. No investment that any art minded person can make is going to be better than the few dollars spent for some photograph. Those of you who are not acquiring a collection are missing the opportunity of a lifetime and will regret it in years to come.

One explanation of the apparent apathy of art lovers towards the collection of photographs lies in the prejudice against a photograph, only, because of the fact that it is a photograph. Perhaps, like the etchers and engravers, we shall have to state, "Of this print, there are only five copies printed on smooth, buff paper after which the plate has been destroyed." We must limit our editions to make appreciation keener. After all, all forms of art are subject to the basic laws of demand and supply.

There is no excuse, however, for the pictorialists being blind to the fact that there are masters among us today. As usual, we cannot see the forest for the trees. The person who realizes the most from his purchases of prints will be he who enjoys what he buys. Purchase for speculation will be extremely risky. Never buy a print that you cannot hang on your walls and enjoy every time that you look at it. If a print will not stand the test of being enjoyed every day, do not buy it. Do not buy any print that does not express some idea, emotion or mood in a fine and beautiful way. Do not invest in any print that is not executed in a permanent medium. Buy nothing that is not perfect in execution and above all, buy nothing but what you like.

If I had a few hundred dollars to invest and could make my selections from the salons over a period of a year or so, there are twenty-five artists whose photographs I would buy. One at a time, I would make my choice and accumulate them, hang them on the walls of my dwelling and hold them for the future to hand down to my children and grandchildren as heirlooms of the family. In such a list I would include the following masters:



- |                       |                        |
|-----------------------|------------------------|
| 1. Alexander Keighley | 14. Rudolph Koppitz    |
| 2. Aage Remfeldt      | 15. E. Chambre Hardman |
| 3. Arthur F. Kales    | 16. F. J. Mortimer     |
| 4. Jose Ortiz Echague | 17. Dorothy Wilding    |
| 5. Marcus Adams       | 18. Jozsef Pecsí       |
| 6. H. Berssenbrugge   | 19. Julius Aschauer    |
| 7. Pirie MacDonald    | 20. Hugo Erfurth       |
| 8. William M. Rittase | 21. Frantisek Drtikol  |
| 9. Edward J. Steichen | 22. Chris J. Symes     |
| 10. William Mortensen | 23. Bertram Cox        |
| 11. Leonard Misonne   | 24. Fred Judge         |
| 12. John M. Whitehead | 25. Johann Helders     |
| 13. J. Capstack       |                        |

This is a purely personal selection. These are the artists whose works I believe have a definite value as works of art. I have omitted the names of those numerous artists whose works are no longer easily available either because they do not exhibit any more or have passed beyond the earthly picture. Among them are the well known works of D. O. Hill, Eickemayer, Julia Cameron, Atget, Gertrude Kasebier, Stieglitz and many, many others. Many of them can be seen in the few permanent collections of photographs which are assembled at the Smithsonian institute, the Royal Photographic Society collection, and the State Museum at Berlin. But they are beyond possession by any private person and it is for such reasons that I have made the above list include our contemporaries only. They are among us and can still be collected with ease. The acquisition of their pictures will give pleasure for many years and prove the best of investments.

Perhaps it seems rather Quixotic to take ourselves so seriously. It seems like vanity to expect our efforts to survive the years and be kept in the galleries and halls of the museums of the world. Perhaps it is vanity and pride, but, nevertheless, it is only when we take our work seriously that we can arrive at the perfection that will make it worthy of such preservation. If we will take this attitude when taking our pictures, perhaps, we will take more care and use that capacity for infinite pain which is called, genius. No photographer who takes his art with such seriousness is going to make poor pictures. We cannot all be geniuses and no doubt, the untold great majority of our prints will not be preserved but neither are the majority of the other works of artists. Our art is young. It is high time that we become aware of its real possibilities and make provision for the establishment of its future glories. I can think of no finer tribute of any photographer towards his art than that he make his pictures with infinite care that they may be permanent and that he insures the preservation of the masterpieces of his art as a testimonial of the beauty and possibility of the medium he employs, the camera and lens.

# Miniature Negative Ailments-Chemical

Neil W. Northey

IT would not be far wrong to state that 95 per cent of the *chemical ailments* which occur in negatives, and especially in miniature negatives, are directly traceable to the development process, the other 5 per cent being ascribable to faulty fixation and washing. The importance of perfect negative finishing cannot be too strongly impressed on the mind of the miniature-camera user. The present-day small camera, with its accurate focusing facilities, efficient shutter, highly-corrected lens, faultless view finder, and other precision features, is capable of producing perfect exposures. But perfection in negative making depends also upon correct finishing, and in that process the photographer stands or falls alone. Assuming that he is using pure fresh chemicals, perfect negative finishing depends entirely on his individual ability, all alibis to the contrary notwithstanding.

Compared to the finishing of large negatives, miniature-negative development increases in importance in proportion to the amount the negative is to be enlarged (and we are taking for granted that it will be used for the making of enlargements). To illustrate, we will say that an 8x12½ negative (if there were one that size) and a V.P. negative are developed together and each comes out with exactly the same chemical ailment, say a slight fog caused by too warm developer or too much alkali or by some other factor. It is easy to suppose that the veiling effect would be scarcely noticeable in a contact print from the large negative, whereas if an 8x12½ inch enlargement were made from the small negative the resulting print would be worthless after magnifying the veil five times. In enlarging, imperfections are magnified, but good qualities are not made better, therefore, a good negative is even more important than the right choice of a printing-paper.

It is obviously impossible to go into the whole subject of chemical

ailments in one article. The best that can be done is to consider a few definite points.

*Water.*—Pure water is one of the most important essentials of perfect photography. Impure water, or water containing foreign chemicals, can completely upset the balance of a formula, and lead to indifferent results. The pureness of water not only influences developer action, but it has a great deal to do with its keeping qualities. And deterioration leads to flatness, fog, stain, and any number of chemical ailments in the negative. Pure water is especially important for miniature negative processing. And we will include here also pure, fresh chemicals.

*Preparing solutions.*—A solution made according to a perfect formula may be spoiled through imperfect mixing of the chemicals. A few suggestions regarding this should be sufficient. For one thing, the temperature of the water is important. Some chemicals like Metol, potassium metabisulphite, and chrome alum should never be dissolved in hot or boiling water. If such chemicals are to be used with others which require hot water to dissolve, they should be dissolved in separate water and the separate solutions mixed after the water has cooled. It is safer never to use water hotter than 125° F. for dissolving any chemical. Chemicals should be mixed in exactly the same order that they appear in the formula. There is an important reason for this which it is not necessary to detail here. All bottles should be labeled to make sure that there will be no mistake, and especially when stock solutions are used for the making of working solutions. The developing "spree" planned might have to be postponed, and a week or more might pass before the developer could be used. I have found that memory is tricky, and bottles of solutions which I felt sure I could remember like old friends were strangers and had to be discarded following a period of other activities during which time the bottles had been disarranged. Besides serving to identify the contents of a bottle, a label can be made to indicate the amount of the contents if it is glued at a known height. Thereafter, when making up a solution, the bottle can be used as a measuring glass by simply filling it with water two-thirds of the way to the measured mark on the label, and after the chemicals have been dissolved it is brought up to the mark by adding sufficient water.

Shaking the contents of a bottle to hasten the dissolution of chemicals hastens oxidation and shortens their life by filling them with air. Chemicals not already in powder form should be pulverized before they are added to a solution to be dissolved.

When weighing chemicals make sure there is no mistake in the weights used, or in setting the scales, or in the figures when it is necessary to reduce ounces to grains, etc. To eliminate the necessity of repeated figuring and the possibility of mistakes when making scale adjustments and such things, it is a simple matter to make a set of weights of lead, each piece of lead exactly the weight of the amount of one of the chemicals used in the formula. Thus if the formula regularly used called for 78 grains of hydrochinone, a 78-grain piece of lead would be used instead of having to employ a 50-grain weight and slide set at 28 grains as would have to be done with the usual form of photographic scales.

And if 385 grains of sodium carbonate were regularly used in the formula, a piece of lead of that weight once made is much more convenient to use than the customary method of first reducing in figures the 385 grains to divisions that will correspond to the scales' weights and balance bar and then having to place each in position, say in this case  $\frac{1}{2}$ -ounce,  $\frac{1}{4}$ -ounce, and 50 grain weights and 7 grains on the bar. It is much easier simply to place a single weight in one pan and balance it with chemicals in the other. Each weight should, of course, have an identifying mark such as C for carbonate, H for hydrochinone, etc., and if they are kept in the order in which they are to be used, one does not even have to look up the formula or remember it, for the weights themselves represent the formula.

It is sometimes useful to know what effect is produced when more or less of a chemical is used in a developer, for it helps to trace the cause of chemical ailments due to irregular developer action in case a mistake has been made in preparing the solution. The following will form a ready reference provided that a standard temperature of 65° F. has been maintained:

Sulphite.—More—Colder tone; possible dichroic fog; flatness.

Less—Warmer tone; tendency to stain (especially with pyro).

Carbonate.—More—Quick development; dense negatives; fog; softened emulsion with possible frilling (use less if the developer is warm); blocked high lights; hastens deterioration of the developer.

Less—Slow development; thin negatives; helpful in holding back development of highlights.

Developing Agent.—More—Excessive contrast; clogged whites.

Less—Slower development; less brilliancy.

Bromide.—More—Increased contrast; brilliancy; restrained developer action.

Less—Possible chemical fog.

(The effect of bromide varies with different kinds of reducing agents.)

*Dilution.*—In addition to the individual chemical proportion, the strength (dilution) of the developer plays an important part in the character of the finished negative. Concentrated developer works fast, producing contrast and considerable density. There is a forcing of the high-lights ahead before the shadows have been affected, with a lack of gradation as the result. Slow tank development avoids this. If the developer is too strong or too warm, it will produce fog unless its action is corrected with the use of bromide. On the other hand, if the developer is too weak, it tends toward oxidation, with stain or streaks as the result. A diluted developer gives fine detail; but thin high-lights will result if the dilution is too much. A diluted developer works slow and is good if there is a tendency toward under-exposure. There should be no need of varying the rate of dilution called for in the formula if the correct temperature is maintained and other factors are as required. It should be understood, of course, that formulas for special, concentrated, fast-working developers have been worked out, some accomplishing complete development in as little as one minute, and when "concentrated developer" is mentioned in the foregoing I refer to concentrated, *normal-formula* solu-

tion and not the special developer in which chemical proportions have been balanced to compensate for the difference in performance caused by concentration.

*Temperature of developer.*—It is most important that the developer should be maintained at an even temperature of 65° F. The temperature has a marked effect on its action and the ultimate result. If the solution is too warm, it causes quick development, flatness, fog, frilling, over-development, and other chemical ailments. If too cold, the result is prolonged development, which means more exposure to light and air if trays are used, leading to oxidation of the developer, light fog, aerial fog, and a tendency toward under-development and blank shadows. Hydrochinone becomes sluggish at 60° F., is useless for practical purposes at 55° F., and it quits work entirely at 40° F. or thereabouts. Thus a cold M-Q. developer produces a negative of different character, one having Metol quality, since cold Metol goes on working. If the developer is too warm, the action of hydrochinone is accelerated and the condition is reversed. Furthermore, some of the less soluble chemicals drop out in cold solution, for which cause wood alcohol is sometimes used in the developer to prevent crystallization during cold weather. A thermometer is indispensable for correct work.

*Chemical ailments.*—Following are a few of the more common chemical ailments in negatives that are caused by faulty work during development and fixation:

*Chalkiness.*—caused by over-exposure and under-development. Remedy.—Use a softer working developer and give less exposure.

*Too Flat.*—Caused by under-exposure and under-development, or by over-exposure and over-development. Remedy.—Use contrasty developer; correct the exposure in the future; or use a lens hood and smaller stop; or employ a more contrasty lighting.

*Graininess.*—A big subject for one paragraph. May be caused by using old sulphite. Fine-grain films and fine-grain developer made of fresh chemicals is the best preventive, along with fresh hypo that has not been used for print fixing.

*Too hard.*—Caused by over-development of correctly exposed or under-exposed negative. Such negatives may be helped by reduction, but great care must be exercised when reducing tiny negatives. It is usually better to make an enlargement on suitable paper and then copy it, working for the desired gradations in the exposure and development of the enlargement and the copy negative.

*Too dense.*—Caused by over exposure and over development, the excessive development being caused often by too strong or too warm solution. Dense negatives may be helped by reduction, but it may be better to handle them as outlined for hard negatives.

*Weak negatives.*—If with clear shadows and normal exposure they are caused by under development; or by using old or exhausted developer; or the solution was too cold; or the chemicals were defective or not correctly mixed. If there is detail in the shadows, the lighting was too flat; or the developer was too weak; or the negatives were over-exposed and under-developed.



Too contrasty.—The negatives were under-exposed and probably forced in the developer; or the developer was too strong, especially of alkali.

Mottled.—Probably caused by lack of movement of the tank during development, or by precipitation from old alum fixing bath. The tank should be reversed frequently to prevent streaks.

Fog.—May be caused by light, by chemical action, or by deterioration of the emulsion due to heat, moisture, or age. We could truthfully say that light fog is a form of chemical ailment. In addition to the ordinary ways in which films may become light-struck, such as loosened film on the spool, light entering the darkroom, or a leaky bellows, there are at least three sources which the user of miniature film should guard against, and especially when using the modern supersensitive, highly panchromatic film. First, the red window in the camera back should be covered, except when winding the film after each exposure, to prevent light leaking around the pressure back to the edges of the film. (This, of course, applies only to supersensitive panchromatic film.) Second, the darkroom developing light should be known to be safe for the type of film used, and in some cases virtually no light of any kind is permissible unless the film is first desensitized. Tank development is the only safe method of avoiding this danger. Third, because of the comparatively large surface of the modern fast lens which is exposed to extraneous light, and because of the almost total lack of barrel in front to protect the surface from side or top lights and foreground reflections, there is likely to be a lack of crispness if not a presence of actual light fog unless a lens hood is employed.

The causes that produce chemical fog are legion. Some of the more common are:

(a) Developer too energetic. May be due to a mistake when weighing the chemicals, or the stock solution may not have been diluted before use.

(b) The use of impure or aged or imperfectly manufactured chemicals.

(c) Exhausted developer, which necessitated the forcing of development. Visual appearance is no indication of the usefulness of a solution, for an exhausted solution is not always discolored. On the other hand, a fine-grain borax developer may be so milky as to appear worthless, yet produce excellent negatives.

(d) Excess of alkali in the developer.

(e) Solution too warm.

(f) Lack of bromide, or it may have been left out entirely. Increase the amount when using old films.

(g) Unclean developing tank or trays; perhaps used also for fixing and not thoroughly washed before developing the next film.

(h) Film not sufficiently fixed. Acid fixer may appear almost clear after its usefulness has ended.

(i) Foreign chemicals in the water; or chipped enameled metal trays.

(j) Chemicals mixed out of order, or in too hot water, or succeeding chemicals added before others are completely dissolved.

Two other forms of fog may be met. One is aerial fog, usually caused by exposure to air during development, but which is also likely to occur when certain kinds of freshly-mixed developers are used. A few drops of used developer in the new will usually correct it. The other is dichroic fog, which is caused by forced development, or too much sulphite in the developer, or by fixer in the developer, or it may be produced by using an exhausted fixing bath, or one with insufficient acid, or which contains chemicals carried over from the developer.

**Stain.**—Usually caused by using oxidized solutions, or by oxidation of solutions on the film through exposure to air and a lack of washing. Oxidized developer may result from insufficient preservative or the use of impure sulphite, an excess of carbonate, the use of too hot water when mixing, impure water, or by dissolving the carbonate ahead of the sulphite. A lack of sulphite in the hypo bath will permit the developer that is carried over to it to oxidize and cause discoloration and stain.

The following hints may act as reminders and lead to better negative finishing:

Use small bottles for keeping developer as a means of avoiding oxidation; or prepare developer in rather concentrated form and dilute it as used, when developers of poor keeping quality are employed. This is not so important with such fine-grain developers as Eastman D-76 in which the reducing agents are Elon and hydrochinon, which possess well-known keeping qualities.

If pyro-developed negatives are too yellow, use more sulphite or buy a fresh supply. Old sulphite permits oxidation and stain. If they are too dense, reduce the amount of alkali.

Do not over-work developer and fixer. Use plenty of solution as it does not become worn out so readily nor give danger of stain through a lack of covering the film.

Maintain the required temperature regardless of how hard it may be to do so.

Filter all solutions except those which, like pyro, would become oxidized by so doing. (If pyro developer is used, only the soda stock solutions should be filtered.)

Never permit a miniature film to lie flat in the developer or fixer any length of time. Keep it suspended vertically or on edge so that grit or precipitation cannot rest on, and become embedded in or attached to, the emulsion.

*Handle the film as little as possible during development and fixation.*

# Our Monthly Competition

## Scoring for Club Trophy Cups

It is pleasant to find a number of new clubs among our contributors this month. Only one of them succeeded in getting into the scoring column, but all sent some fine material that promises success in the future. To Mr. H. F. Kells of the Camera Club of Ottawa goes the honor of being the first to score 15 points for his Club. As our rules which appeared in the November, 1933 issue state, no individual can win more than 15 points for his or her club. The Camera Club of Ottawa had 11 points before this month. Mr. Kells took first place, but because of the above-mentioned rule, only four of these may be credited to his club since he is responsible for all of the points. This does not mean that Mr. Kells cannot continue to win awards in this competition. He is as welcome as ever, for no consideration is given to the club affiliation until after the judging is complete. It simply means that his club cannot receive credit for such awards as he may take. He has given his club a fine start in the race and we hope that other members of the same organization will be equally successful.

The following individuals scored points for their clubs: M. K. Curtis, for the California Camera Club; H. F. Kells, for the Camera Club of Ottawa; Dr. Max Thorek, for the Fort Dearborn Camera Club; Roland Calder, Wm. E. Wing, and H. C. Benedict, for the Photographic Society of San Francisco; R. W. Olson, for the Schenectady Photographic Society; and Joseph Evans Rogers, for the Telephone Camera Club of Manhattan.

## Contributing Clubs

California Camera Club	Photographic Society of Bangalore
Camera Club of Ottawa	Photographic Society of San Francisco
Central Y. M. C. A. C. C., Cleveland	San Jose Camera Club
Fort Dearborn Camera Club	Schenectady Photographic Society
Fresno Camera Club	Sunshine Photo Club
Golden Gate Leica Club	Syracuse Camera Club
Monterey Peninsula Camera Club	Telephone Camera Club of Manhattan
Norfolk Photographic Club	University of Minnesota Camera Club.

## Standing of Clubs

### Large Clubs Advanced Class

Camera Club of Ottawa.....	15
Pictorial Photographers of America.....	13
Fort Dearborn Camera Club.....	10
California Camera Club.....	5
Telephone C. C. of Manhattan.....	4
Utica Camera Club.....	1

### Large Clubs Amateur Class

Photographic Society of S. F.....	22
Schenectady Photographic Society.....	15
California Camera Club.....	7
Golden Gate Leica Club.....	3

### Small Clubs Advanced Class

Japanese Camera Club.....	14
---------------------------	----

### Small Clubs Amateur Class

San Jose Camera Club.....	2
---------------------------	---

## AMATEUR COMPETITION

May, 1934

### List of Contributors

Ralph H. Anderson	R. Brett Collerd	Viola Hawke
Angelo V. Astone	Dr. James A. Cutting	Johanna E. Heim
Herbert N. Baker	J. Daniels	Boulton Hertzog
Stanton Becker	A. S. Edwin	Delbert E. Jack
Stewart Becker	Gardiner B. Fetter	R. W. Johnston
F. M. Beckett	Warren A. Ford	Roy H. Kamm
H. C. Benedict	Wm. H. Foster	William Karsten
Lawrence Berman	Mortimer Friedman	L. W. Kramer
Rolf H. Bruhn	I. L. Gartland	Maurice E. Lemmiel
R. M. Bushman	Sidney Goldberg	S. C. Leonard
Roland Calder	H. M. Harris	B. W. Leroy
Margaret B. Clarke	Miss Wilma Hartley	W. Dovel Le Sage
Willis D. Cook	Henry Hartman	P. F. Loope
Miss Vivian Coats	Wm. M. Harty	L. H. Lynn

(Continued on Page 241)



*"Soul of the Dance"*

H. F. Kells

Advanced Medal Print

■ The effectiveness and strength of H. F. Kells' "Soul of the Dance" causes us to wonder why more pictorial photographers do not make use of the principles of photo-montage. The technical difficulties are not great, but the production of such pictures does involve a high degree of artistic imagination with respect to the original conception, and we suspect that this is the limiting cause if one actually exists. Whatever the reason may be it seems evident that the Illustrative and Advertising photographer, possibly driven by the necessity to be different, has been much more ready to make use of the advantages offered by this method.

Montage does not necessarily require that the secondary image or images be subdued in printing, but when this is desirable, as is the case with this picture, two technical points should be kept in mind. First, the depth to which the secondary image is printed is of great importance. It must be just strong enough to suggest a dream image—something removed from reality. Second, to obtain this quality in the secondary image the scale of values, or in other words the contrast between the highest lights and the deepest shadows, must be greatly reduced. Thus in making the negative for the secondary image a flat balanced lighting and shortened development should be employed, for it is obvious that if one attempts to print a subdued image from a negative of strong contrast only the shadows will make an appearance. It should also be noted that the combination of images will be facilitated if the objects are photographed against a strongly lit white background.

By making use of montage Mr. Kells has enlarged and emphasized the idea  
(Continued on Page 238)



*"Haven"*

Amateur Medal Print

*Roland Calder*

■ In "Haven" Roland Calder has successfully surmounted the two principal difficulties that are the commonest causes of failure in pictures of ships, and in many another type of picture as well. We have all seen ship pictures in which the confusion of lines in the rigging and the numerous highlights and shadows of the superstructure, make it quite impossible to recognize any dominate center of interest. On the other hand, in an over-zealous attempt to avoid this difficulty we are presented with pictures of a portion of a bow or stern so overly simplified that the picture is robbed of all intention and meaning.

Notice that in this picture a strong center of interest is established on the sunlit side of the ship on the left, and that all the main lines of the composition lead to this area, and also that sufficient surrounding material is included to tell the story of old neglected ships, no longer afloat but forlornly resting in the mud. A line which parallels the edge of a picture may often be disturbing especially when it bounds an area which contains nothing of interest on one side and much of interest on the other. This appears to be the case with the line established by the reflection of the prow in the water. Apparently Mr. Calder has adopted the present trimming so that the end of the white scroll

(Continued on page 240)



stated in the title of the picture. The dancing figure portrays the physical action and grace of the dance, while the large head looking upward suggests the emotional ecstasy that beautiful dancing arouses, and also Man's constant effort to project his soul to a higher plane by means of the arts.

Data: Agfa View; 10½" Turner Reich anastigmat; 1/5 sec. at F:8 with one 500 W. lamp in reflector over head and one 500 W. lamp with diffusion placed back to lighten shadow; E.K. Portrait Pan., in D-76; Opal T print in D-73 with extra bromide. Composite print from two negatives.

■ Apparently Mr. Rogers appreciates the value of a good stage setting. Observe how the rough brick-work background points up and lends atmosphere to the interesting materials of this well composed still life. Whatever the object to the right of the brick background may be it has no place in the composition so it would be well to eliminate the highlight which calls it to our attention.

Data: 9x12 cm. Voigtlander; Skopar lens; 1/10 sec., at F:11 on Defender X F Pan., by daylight; print on Defender Velour Black.

■ One of the notable features of much of Dr. Thorek's work is the very effective use which he makes of shadows. The dramatic, weird, and barbarous effect of "Bring Rain" is enhanced by the strong shadow and the composition is strengthened by the repetition of forms. We are slightly disturbed by the fact that the sharpest focus occurs in the shoulder area and that there is a noticeable falling off of definition in the face. It is quite possible that Dr. Thorek has purposely adopted this selective focusing in order to concentrate attention upon the arm and shoulder so that the muscular tension may be more readily observed and the intensity of the supplication thereby emphasized. If such was the intention we feel that it is not entirely successful, for the strong psychological attraction of the face draws, our eye at least, and results in a slight disappointment that the face is not more vigorously shown.

Data: 8"x10" Studio; 18" Verito; ½ sec. at F:8, on Agfa Plenachrome in Glycin; print on Mimosa CB5 in M.Q. from paper negative.

■ Virna Haffer's "A Skier of Mt. Ranier" is chock full of action and seems to be caught at just the right moment to achieve the maximum pictorial effect. We must admit, however, that the figure is poorly placed within the picture area. There is not nearly enough head room. What would happen if this gentleman should suddenly decide to stand up? Also we would like to see more space in front of the skier in order to allow him a bit of room in which to travel. In this respect it would help if the ski pole in the left hand did not carry so far to the right for we would then be able to trim from the right and as a result would not need to add as much to the left as now seems necessary. At least half of the out-of-focus foreground could be trimmed away if we had the needed space at the top, and of course, the black spot in the upper right should be eliminated.

Data: 4"x5" R. B. Graflex; 8¼" Goerz lens; 1/350 sec. at U. S. 8, on E. K. S.S. Pan., no filter; bromide enlargement.

■ In "California Hills," Mr. M. K. Curtis has been highly successful in capturing the lovely atmospheric quality of this landscape. The veiling of the distant hills by the slanting light lends a very charming quality to the print. Notice with what fine gradations of tone the different planes from the foreground to the distance are established. For two reasons we would like to trim from the left into the point where the skyline starts upward. First, this moves the dark clump of trees that are now almost in the center of the picture into a less awkward position. Second, and most important, such trimming seems to subtly increase the strength of the leading line which is now only slightly noticeable. This line is set up by the faintly defined wagon tracks in the foreground, passes to the right of the trees, then swings left to the gully between the two hills and follows the gully out to the horizon. Any treatment which will strengthen this line adds to the coherence of the picture.

Data: 5" x 7" Century Grand; 18" Struss; Defender Portrait Pan., with K 2 filter; enlarged on Defender Velour Black, in M. Q.



ADVANCED  
MAY

2

14



3

51



Second: "Jugs", Joseph Evans Rogers

Third: "Bring Rain", Dr. Max Thorek, F.R.P.S.

Fourth: "A Skier of Mt. Rainier", Virna Haffer

Fifth: "California Hills", M. K. Curtis

## ADVANCED COMPETITION

May, 1934

### List of Contributors

Edward Alenius  
Fred E. Crum  
Evelyn Curtis  
M. K. Curtis  
Hanford H. Douglas  
Eldon L. Eby  
G. D. Farnsworth  
Christine B. Fletcher  
Norman Rhodes Garrett

Karl George  
Erwin Gordon  
Virna Haffer  
Jack Hazelhurst  
Lionel Heymann  
H. F. Kells  
Philip Langdon  
June Marston

Samuel Norstein  
Wayne D. Ormston  
Guido Pellegrini  
Herbert Ransome  
Joseph Evans Rogers  
O. F. Smith  
Ronald Tate  
Dr. Max Thorek, F.R.P.S.  
Hobart Watrons

MAY, 1934

work to the left of the prow may be shown, with the idea in mind that the line of this decoration might lead the eye out of the picture at the left. There does not seem to be much danger of this taking place, and we cannot see that the shadowed area on the left demands its present dimensions. The line in the water is not exactly parallel to the edge of the print and by trimming about three-quarters of the distance from the left to the point where the prow cuts the water the appearance of parallelism is destroyed. For that reason we believe that such trimming is advisable. Try it and see if you agree.

Data:  $3\frac{3}{4} \times 4\frac{1}{4}$  R.B. Graflex; Bausch & Lomb Tessar;  $1/25$  sec. at F:8, with K2 filter, on E. K. Portrait Pan., in M. Q.; Dassonville Charcoal Black E. in Amidol.

■ Mr. E. Ashford Sampson's "Solitude" is nicely composed and the figure is in excellent proportion to the landscape. The eye is led firmly into the picture by following the gaze of the figure. If one compares this print with Mr. Curtis' "California Hills" it is evident that Mr. Sampson has not been entirely successful in maintaining aerial perspective. A more marked recession of planes between foreground and distance would add considerably to the picture.

Data:  $4 \times 5$ " Graflex;  $7\frac{1}{2}$ " Kodak Anastigmat;  $1/50$  sec., at F:8, with K2 filter on Defender X-F Special, in D-76; paper negative on Defender Veltex from positive on Agfa Ansco Brovira Porcelain White, final print on Veltex, in Amidol.

■ It is seldom that one finds a landscape with its various elements so well laid out for picture purposes as is the case with "Sparklets" by R. W. Olson. At the same time we must not overlook the fact that the picture had to be seen and that it very likely took considerable study on the part of Mr. Olson to select just the right viewpoint, and the right time of day to make the exposure. Use your imagination a bit and visualize how this scene would look with the light coming from behind the camera, and you will have learned a lesson about the importance of the direction of light in building pictures. Snow and water quality are well rendered and the composition holds together splendidly.

Data: Deckel V.P. Fontessa, 7.5 cm. Zeiss Tessar F:4.8;  $1/20$  sec. at F:3.8 with Aero No. 1 filter on Agfa Ansco Fine Grain Plenachrome in D-76; print on Agfa Ansco Crystal Stripple in M. Q.; Blue toned with Burroughs & Welcome Tabloid Blue Toner.

■ In "Study," Wm. E. Wing has been quite successful in bringing out the sweetly feminine personality of his charming sitter, with a deft and dignified touch that is most pleasing. The picture seems to be printed just a tone too dark with the result that the detail in the hair, which is undoubtedly in the negative, has been partially lost. But for this fact the picture would probably deserve a higher rating.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$ " Korona View;  $9\frac{1}{2}$ " Goerz Dagor; 1 sec. at F:6.8 on Defender X-F Pan.; Veltura DL in Amidol.

■ H. C. Benedict's picture is untitled but nevertheless affords a fine example of good posing. By throwing the face of one of his figures in the shade and blocking off part of the body with the other figure, Mr. Benedict has firmly established the foremost figure as the dominant one of the group, and thus avoided that division of interest that is so often evident in pictures containing two figures. At the same time there is absolutely no evidence of conscious posing, and the complete naturalness of the two boys is responsible for much of the charm of this picture. Feet and legs are rather too much in the lime-light and it would probably help if the boy on the left had his feet crossed or close together as has the other one. The brick background in the upper right is just a trifle busy and the picture would be improved if the tones in this area were leveled out.

Data:  $3\frac{1}{2} \times 4\frac{1}{4}$ " Graflex;  $6\frac{3}{8}$ " Cooke;  $1/40$  sec. at F:8 on E. K. Portrait Pan., in E. K. D-7; print on E. K. Portrait Proofing in Amidol.



2  
←



3  
→

## AMATEUR MAY

4↓



5↓



Second: "Solitude", E. Ashford Sampson

Third: "Sparklets", R. W. Olson

Fourth: "Study", Wm. E. Wing

Fifth: H. C. Benedict

## AMATEUR CONTRIBUTORS

(Continued from page 235)

Dwight S. McDaniel  
Richard K. Mercer  
Harold D. Nelson  
H. W. Newsome  
Herbert S. Oakes  
Don Kirby Oliver  
R. W. Olson  
R. N. Pelton  
Frank Primes  
Errol Prince

S. S. Rao  
Frank X. Reilly  
George C. Reinhard  
Ralph Rex  
F. L. Rogers  
Emilie & Karl Romaine  
E. Ashford Sampson  
Alajos Schuszler  
Albert Settino  
Alex Silverberg

E. D. Sismey  
Miss Bess Snyder  
Herbert Stuhlemmer  
Irvan E. Taylor  
Stuart S. Towne  
Charles T. Vandervort  
Eric Walther  
Miss Esther L. Wildman  
Wm. E. Wing  
Walter E. Woestman



# Cinema Section

Edited by

William A. Palmer

## Uses of the Matte Box

The use of the matte box as a sun shade and filter holder and as a support for masks in double exposure work has been mentioned in this department on several occasions. Now we turn to the use of the device for various types of camera effects, the sort of effects that put that professional touch to amateur films.

### Vignetting

The first of these effects is the vignette which is used a great deal in professional pictures. This effect appears on the screen as a fading or darkening of the scene at the edges, giving an accent to the subject in the central portions of the frame. It is especially useful in close ups of all types and in long shots when the detail of portions of the scene, which are near the edge of the picture, might detract too much from the center of interest. The effect is similar to that obtained in still photography when an enlargement is "dodged".

The matte for vignetting work is an opaque card having a rectangular opening with well rounded corners. The size of this opening will vary with the distance from the lens and may be determined as follows:

For a 1 inch (25 mm.) lens.

Width of opening=distance from lens  
X .35

Height of opening=distance from lens  
X .26.

For example: If the matte were placed 2 inches from the lens, the width of the opening would be 2 X .35 or .70 inches; the height of the opening would be 2 X .26 or .52 inches.

The matte, when cut with a razor blade

and blackened on the freshly cut edges with india ink, is placed on the front of the matte box, accurately centered with the axis of the lens. The size of the opening is such as to encroach upon the field of the lens slightly and, when a stop of f. 5.6 or larger is used will give a very pleasing falling off of brightness at the edges of the picture. The matte should not be placed more than three inches away from the one inch lens lest the falling off be too abrupt.

Figure 1. shows a scene taken normally with no attachment on the lens. Figure 2. shows the same scene with the vignette in place. Notice how the unimportant detail at the edges of the picture are toned down to give better accent to the center of interest.

### The White Iris or Edge Diffusion

A second effect that can be made with the matte box is the so called white iris or edge diffusion. The screen effect is to cause the scene to be normally sharp in the central portion and become more diffused toward the edges. The degree of diffusion obtained at the edges is determined by the material used in the matting process.

A common method of achieving the effect is to cover the front of the matte box with bolting silk, scrim, cheese cloth, or other similar material. A small circular hole is cut in the center to leave that portion of the lens view unobstructed. The closer the weave of the cloth used, the more will be the diffusion on the edges and white, colored, or black material will give different effects. The use of a frosted sheet of celluloid, in which a hole has been





Fig. 1. Normal Exposure. No attachments on lens.



Fig. 2. Rectangular Vignette in Matte Box.

cut at the center, will give the true white iris effect, the edge of the picture image being completely softened to a uniform grey.

Figure 3. shows the results obtained by the use of bolting silk as the diffusing medium. The silk should be about two inches from the lens with the hole in the center about  $\frac{3}{8}$  inch in diameter. A few experiments with different diffusion materials and different size openings will prove very valuable.

### The Spot Light Effect

An interesting spot light effect can be obtained in a manner similar to the edge diffusion effect just described. Instead of the use of cloth or other diffusing material, the use of ordinary colored gelatin (the type that is used for theatrical stage lighting units) is resorted to. A sheet of straw color, with a central opening, will give a scene normal density in the center with good detail but much greater density on the edges. If the gelatin in this case is placed further from the lens, say five inches, there will be a sharper division between the densities and a much more pronounced spot light effect.

Various colored gelatins can be used to get different densities and here again a few experiments will prove interesting. The common theatrical gelatin can often be used for emergency color filters and in other special cases when a certain slight loss of the definition of the scene is not serious.

### Fog, Soft Focus, and Diffusion

Soft focus effects and diffusion are used a great deal in professional pictures, but very seldom in amateur films. However, these effects are so simple to create and for some uses are so very valuable, that it is worth while trying them out in a few scenes.

Soft focus does not imply that the scene should be fuzzy or out of focus. On the contrary, the scene should always be sharp, with good detail, the diffusion being a slight blending of the highlights and shadows. It is especially useful in close-ups when it serves to eliminate wrinkles and make-up imperfections.

Soft focus or diffusion is perhaps most properly obtained by the use of special lenses or specially built diffusion disks which are made to slip over the regular lens. But often the use of diffusion filters in the matte box will produce effects just as good. A number of diffusion screens to be used in the matte box can be made, having different degrees of diffusion. A good method of manufacture is to give sheets of clear glass (lantern slide cover glasses) a very slight spraying of white lacquer. Several sheets can be coated to different degrees, but none should have as much as fifty percent of the area obscured by the paint particles, which should be very finely divided. It may take a number of trials before the glasses can be given a light even speckling. The diffusion



Fig. 3. Edge Diffusion by the Use of Bolting Silk.



Fig. 4. Straw Colored Gelatin Matte with Clear Center.

screens are used in the matte box at a little distance from the lens, usually about 2 inches away.

Mist and fog effects are produced in a manner similar to soft focus, the only difference being that the screens used are somewhat heavier. The same materials that were mentioned above for the edge diffusion work, if white, can be used for fog effects when they are made to cover the entire opening of the matte box.

**Important:** It must be remembered that in all of the effects described above, the mattes and screens are placed at the front opening of the matte box, either in the slide provided for the purpose, or affixed in position by adhesive tape. They must therefore be shielded from the direct rays of the sun or lighting units when the camera is pointed toward the light source.

### Wipes

Strictly speaking, the wipe is a type of transition between scenes in which a straight line passing from one side of the scene to the other appears to wipe off the scene, leaving a new one. As done in professional films, parts of the two scenes are on the screen simultaneously, an effect which is rather too complicated to be achieved with the ordinary cine camera. However, a method of making wipe effects, which is open to the matte box user, will give very excellent screen effects without the necessity of back cranking or accurate timing.

This method consists simply of passing an opaque card across the opening of the

matte box at the end of the scene, "wiping" the scene off. The following scene is started with the card completely covering the field and then the card is withdrawn in the same direction that it was moved in closing the previous scene. That is, the card in closing the scene will "wipe" say from left to right and then will open the next scene by starting at the left and moving to the right again. It can be seen that, with this method, it is not necessary to take the two scenes, that are to be joined by a wipe, in sequence. They may be made in any order and then spliced together after the film is finished. The splice is made at the point on the film when the scenes are both just completely wiped out. Thus, on the screen, the one scene is completely masked off and then the next is immediately disclosed, but the interesting fact is that the eye is fooled into thinking it sees both scenes simultaneously. Of course, the apparent dividing line between the two is wider than in the usual professional practice.

Obviously, the more common wipe, made with a vertical dividing line, may be varied and the dividing line may be made to be horizontal or diagonal, or it may move in an arc or other curved path. The best results are obtained when the masking card is made to move at a distance of five to seven inches from the lens, as this will give a sharper image of the dividing line on the film.



Fig. 5. Combination of Mattes: Vignette, edge diffusion, and straw colored gelatin mattes superimposed.

## Cinema Punctuation

The movie maker has at his command the various special camera effects which may well be termed the punctuation marks of motion pictures. These devices are most useful in the construction of continuity when they are properly employed, but they can be a detriment if used without good reason.

The common types of punctuation marks are: the fade-in and fade-out, the iris-in and iris-out, the lap dissolve, and the wipe. There are other less common types but these are the ones that find most general use in professional and amateur pictures.

All of the major units of a motion picture are introduced by a fade-in which serves to disclose with dignity the first scene of the sequence. The fade-in can be considered a sort of curtain raising. Likewise, the major units of the picture are closed with the fade-out, which is a period mark and indicates the completion of a definite part of the continuity. The fade-in and fade-out are used between sequences to denote a lapse of time.

The iris-in and iris-out are very similar to the fade-in and fade-out in their use, but are more specialized. These effects, which are produced by opening and closing an iris diaphragm which is placed at a little distance from the lens, (The device is called a "vignetter" by its manufactur-

ers.) can be used interchangeably with the fades, but are more properly used when it is desired that the audience attention be concentrated on the center of interest. For example, if it is important to get the attention of the audience directed to a particular character in an opening scene of a sequence and there are, perhaps, many other distracting characters in the scene, an iris-in would be used with the circular opening first showing his surroundings. In the closing of a sequence, the iris-out can similarly be used to prolong the attention on the center of interest. This is particularly useful in a comedy sequence which finishes with a "smash". The iris-out can be used to keep the action in view long enough for it to register but not so long that it loses its punch.

The lap dissolve is a device that is more complicated to make with the ordinary cine camera, very simple to make with the new special cameras that may be turned backward. It has even more specialized use than the iris devices. A lap dissolve between two scenes indicates a very close and intimate connection, serves to shift locale without denoting a lapse of time, much as a title "Meanwhile" would do. The dissolve is most useful in connecting

a scene of a person telling a story with the scenes of the story being told. It can be seen that this device may very easily become abused. Because it is somewhat more difficult to make than other effects, there is a great temptation to use it too much, to use it, for instance, between sequences which should have a fade-out and fade-in to show a lapse of time.

The last of the more common punctuation marks, the wipe, is also the most recent one to be developed. This is a truly useful device for which there is really no direct substitute. To connect a series of short sequences whose nature is such that direct cuts cannot be used, yet whose

tempo must not be slowed down by the other punctuation marks which are more leisurely, the wipe is supreme. The wipe is primarily a rapid transition device and does not convey a sense of time lapse.

In summary, it is well to point out that cinema punctuation has very definite usage, not so strict and bound by such definite rules as the punctuation of writing, but nevertheless subject to certain common sense restrictions. The straight cut from scene to scene is still the most effective method of transition for all ordinary continuity construction within the sequence, but properly used punctuation between sequences is always desirable.

## Correspondence

Gentlemen:

In the rush of Christmas business I failed to get the second of Mortensen's articles on projection printing, and the stores sold out their supply overnight.

Enclosed is 24 cents in stamps. Please send me a copy of the December **Camera Craft**.

May I comment on the fact that **Camera Craft** is of more value to me than all the other monthlies together? It used to be just another magazine, but somebody has evidently put a heavier foot on the gas lately. Seldom is a photographic publication of any consistent use to the professional, but **Camera Craft** is now. Keep it up.

—P. H. S.

All copies of **Camera Craft** from October, 1933 to April, 1934 inclusive are sold out and we cannot supply back copies of any of these issues.

Mr. Mortensen's articles on "Projection Control" are now available in book form, price \$.60. An entirely new chapter with four illustrations on the exposure and de-

velopment of the negative, and four illustrations of the manipulations in Local Printing, Distortion, and "Dodging In" have been added to the original material.

—Ed.

### Photographic License Ordinances

Dear Sir:

Mr. H. A. Insinger of St. Charles, Missouri, writes me under date of November 1, 1933, to say City Collector has written him as follows:

"Having been advised that you have been taking pictures in this city, it is necessary that you have a photographers license.

"I am enclosing a copy of the City Ordinance No. 385, which is self-explanatory. You may take out a license for six months if you so desire, which will be \$7.50. It is necessary to have a license in order to avoid additional cost. Yours sincerely, (Sgd.) John C. Platz, City Collector."

Copy of the ordinance was enclosed as follows:

"Every person engaged in business as a

photographer (including traveling photographer) in said City shall pay a license tax of \$15.00 per year. Every person who takes pictures, likenesses or representations of persons, or objects, or things, at a place in the City, whether inside or outside of any house, building or covered place or in the open air, and charges and accepts a compensation therefor, shall be deemed a photographer within the meaning of this chapter."

Mr. Insinger asks what I think of it and in his letter states, "Oh, yes, the local photographer is behind this."

Here is my reply to Mr. Insinger:

I am very glad to have your letter of November 1st and I am copying off the ordinance you sent on, in order to return the original to you. You ask my opinion about it. Having studied law and having been a mayor of my own town for some years, perhaps I am qualified to express an opinion which will be worth something. The ordinance is absolutely unconstitutional. It is discriminatory against the photographic profession as a whole. There is no more reason in law for charging a photographer for plying his profession than there is for discriminating in like manner against school teachers, ministers, lawyers, mechanics, or even City Collectors for a special occupational tax.

You are not required to pay any such tax unless you care to; that is my opinion. My own action in similar case would be to go right on with my work and let the City make the next move, even to the point of arrest. When brought to court I should have my counsel request the court to make a flat ruling as to whether you who make and sell photographs can be taxed for so doing any more than a farmer who makes and sells apples. This is nothing in the world but an occupational discriminatory tax effort and will not hold water. . . .

Another factor that seems remarkable to me is that the camera supply stores, the manufacturers, and all the business elements entering into camera activities have not yet realized that there are and will remain at least ten times as many successful small operators as large "pro-

fessional portraitists"; have not realized that this larger group buys and has bought and would like to continue to buy the bulk of cameras and supplies that have been sold in the last three years while the old-timers bought practically nothing; have not realized that men like myself who buy four gross of portrait paper every thirty days, three hundred and sixty negatives, and take my mounts by the thousand lot and pay cash for them, and buy new cameras and lenses frequently, are perhaps worth as much to them as that other group who has put over these ordinances. These interests could have bucked and choked these ordinances at the beginning. But let's be of good cheer. These ordinances will be short-lived! They won't work and they won't live long. . . .

If this letter seems forceful, please believe me that it is not on my own account. If there are any special taxes to be paid, I can pay them better than the next chap, and if he has been worried by my competition he will have more real cause to worry. This used to be a free country in which every man had an equal right to make a living and I am quite willing to sacrifice everything that I am and have to keep a vestige of freedom in it. . . .

Therefore my solicitude is not for myself but for the tens of thousands of people who would like to take a picture of a man playing golf or fishing and be able to sell it to a sports magazine without paying the City Collector \$15.00. And, I ask you in all good cheer, how will the City Collector check up on such cases? The whole thing is a phase only of this modern American frenzy to "get even."

Sincerely yours,

H. Rossiter Snyder.

We do not believe that licensing ordinances are primarily directed against the free-lance photographer, the bulk of whose work goes to magazines, etc. We are interested in determining to what extent licensing ordinances have been enforced against the free-lance and to that end would like to hear from those engaged in this work in localities where such ordinances are in force.—Ed.



# Photographic Digest

Dr. H. D'Arcy Power, F. R. P. S.

## Iodide Intensifier

For several months the British Journal of Photography has been engaged in an almost continuous discussion concerning the various troubles and remedies connected with the development, fixation and preservation of Bromide prints and negatives. It is not exactly the time to make a summary of the opinions expressed by a group of men who so far as their position in the Technical Photographic World and great experience of mass production entitled them to serious consideration. This I propose to do at a later date. One little item however, is more or less detached and seems to be of great value and likely to be intrinsically true and not changed by further discussion. Mr. W. B. Shaw, M.A., B.Sc., has recently refurbished the reputation of the old Edward's Iodide Intensifier, and claims that in the formula which I am about to give is to be found the best intensifier so far used. Anyone who wishes to study the whole subject should read this paper in the British Journal of Photography for June the 16th, 1933, wherein the matter is not only discussed from the chemical standpoint, but also a most full bibliography given. There is no need for me to go further into this than is necessary to make the result useful to our readers, and I will quote his words in regard to some of these things:—

"The formula which I recommend with every confidence—since exhaustive tests, not only by myself as an amateur but by a professional friend under commercial conditions have proved its complete reliability—is as follows:—

Mercuric iodide .	90 grs.	2 gms.
Potassium iodide	90 grs.	2 gms.
Hypo . . . . .	90 grs.	2 gms.
Water . . . . .	10 ozs. fl.	100 c.c.s.

The ingredients should be dissolved together in a very little water, and the solu-

tion made up to bulk afterwards. Warm—but not hot water may be used with advantage.

The solution may be used repeatedly until exhausted. The concentration given above is suitable for all ordinary purposes. It should be borne in mind that the intensification is direct, and that the increase in density is under continual observance and can be stopped at will. For some purposes it may be desirable to use a solution in a more dilute form, in order to control the progress of the intensification with greater ease. In such cases, the intensifier may be diluted with an equal bulk of water.

As the solution contains Hypo, it is not essential, before intensifying, to wash the substance completely out of the film. But it is desirable to wash the negatives for about five minutes, before treating them with the intensifier.

On the completion of intensification fifteen minutes of washing is usually sufficient to remove all soluble impurities. Although negatives stored without further treatment may have an extended life, they are quite definitely not permanent. To render them completely staple they should be emmersed in a one per cent sulphide bath until the image has been wholly changed—as viewed from the back—from grey to brown-black. This operation is sometimes, but not always, accompanied by a slight decrease in density. It is not usually sufficient to need any allowance being made for it. Different makes of plates vary somewhat in their behaviour and no definite rule can be laid down.

The intensifying solution must be stored in an amber-glass or earthenware bottle; blue glass will not serve. Alternately, it may be kept in a white bottle in the dark. Under these conditions the solution will retain its activity for months

but exposure to daylight even for a few hours will destroy it entirely."

In regard to this statement that there may be a slight decrease in density when such plates are sulphided I would like to remark that a change of this kind occurs when without using a special intensifier a negative is bleached and redeveloped with a sulphide. My experience has shown that in these cases the alteration in colour brings with it a marked intensification and a certain clearing effect due to a different aggregation of the Ag 2s particles.

"What it will Do!"

"the advantages of this improved Edward's Intensifier may be summarized as follows:—

The ingredients are readily obtainable. It is not necessary to sign the poison book when purchasing Mercuric iodide. The plates need not be washed free from Hypo before Intensification is commenced.

Intensification takes place, directly and visibly, in one step. It is therefore under constant control.

The intensification, if unsatisfactory, can be removed entirely by treating the plate with 20% Hypo Solution. (This must be done before any after treatment is applied.)

Local intensification can be carried out under continual observation, and local

density can be built up to a required strength with ease and certainty. Moreover, errors are remediable. (If very exact matching of density is essential Sulphiding should be omitted. If the plates are of only temporary importance no after treatment is necessary. No alteration in density occurs if the negatives are treated with M.-Q. developer, and the stability is thereby greatly increased, although they cannot be regarded as being absolutely permanent.)

The Intensified images if sulphided are absolutely permanent.

Stains and failures are almost unknown.

Even if it cannot be claimed that this intensifier is perfect it appears to offer advantages which are possessed by no other process.

In conclusion, I offer this revised version of the Edward's Formula to my fellow workers with every confidence, in the hope that it will prove to be as great a boon as it has to me."

On several occasions and in particular in my Paper on Intensification in General in **Camera Craft** of two years ago I have inveighed against any form of Mercurial intensification, but I am inclined to agree with Mr. Shaw that Mercuric Sulphide is a particularly stable substance and likely to stand the influences which are fatal to other forms of Mercurial intensification.

## Association News

### The Code

The Code was signed on March 23, 1934 and is designated as Approved Code No. 362, Code of Fair Competition for the Photographic and Photo Finishing Industry. It goes into effect ten days from the above date. Copies of the Code will be widely distributed so it hardly seems necessary to reproduce it here. Those desiring copies of the Code may obtain them for \$.05 each from the Superintendent of Documents, Government Printing Office,

Washington, D. C., or from any of the following district offices of the Department of Commerce.

Atlanta, Ga.: 504 Post Office Bldg.; Birmingham, Ala.: 257 Federal Bldg.; Boston, Mass.: 1801 Customhouse; Buffalo, N.Y.: Chamber of Commerce Bldg.; Charleston, S.C.: Chamber of Commerce Bldg.; Chicago, Ill.: Suite 1706, 201 North Wells Street; Cleveland, Ohio: Chamber of Commerce; Dallas, Tex.: Chamber of Commerce Bldg.; Detroit, Mich.: 801 First National Bank Bldg.; Houston, Tex.: Chamber of Commerce Bldg.; Indianapolis, Ind.: Chamber of Commerce Bldg.; Jacksonville, Fla.: Chamber of Commerce Bldg.; Kansas City, Mo.: 1028 Baltimore Avenue; Los Angeles, Calif.: 1163 South Broadway; Louisville, Ky.: 408 Federal Bldg.; Memphis, Tenn.: 229 Federal Bldg.; Minneapolis, Minn.: 213 Federal Bldg.; New Orleans, La.: Room 225-A, Customhouse; New York, N. Y.: 734

Customhouse; Norfolk, Va.: 406 East Plume Street; Philadelphia, Pa.: 422 Commercial Trust Bldg.; Pittsburgh, Pa.: Chamber of Commerce Bldg.; Portland, Ore.: 215 New Post Office Bldg.; St. Louis, Mo.: 506 Olive Street; San Francisco, Calif.: 310 Customhouse; Seattle, Wash.: 809 Federal Office Bldg.

### Organization

A Temporary Code Authority has been formed to hold office until June 1, 1934, at which time a Permanent Code Authority must have been elected and installed. Members of the Temporary Authority are as follows:

#### Portrait Division:

Irving Chidnoff, New York City.  
George J. Kossuth, Wheeling, W. Va.  
J. B. Schriever, Scranton, Pa.

#### Alternates:

Fred R. Bill, Cleveland Heights, Ohio.  
Alfred Brown, Brookline, Mass.  
R. R. Jennings, Atlanta, Ga.

#### Commercial Division:

James M. Caufield, Louisville, Ky.  
Charles D. Kaufmann, Chicago, Ill.  
J. W. Scott, Baltimore, Md.

#### Alternates:

L. J. Inman, Long Beach, Calif.  
Grant Leet, Washington, D.C.  
H. I. Williams, New York City.

#### Photo-Finishing Division:

Cedric Chase, Waltham, Mass.  
Glen M. Dye, Minneapolis, Minn.  
R. J. Wilkinson, Jackson, Mich.

#### Alternates:

George S. Cullen, Washington, D.C.  
Albert F. Hogle, Brooklyn, N.Y.  
Nathan Reiman, Stockton, Calif.

Mr. J. E. Heap, Jr., will sit with the Code Authority as the direct representative of the NRA and the Deputy Administrator in direct control of the Code is Col. G. DeFreest Larmer.

### Regions

For purposes of administration the country is divided into 30 regions the geographical boundaries of which are given in detail in Schedule A of the Code. Each region will have a directorate of three; one representative for each of the three divisions of the industry, Portrait, Commercial, and Photo Finishing.

### Elections

Prior to May 15th elections for Regional Directors will be held in each region, the elections to be handled by the Code Authority Office in Washington under the

supervision of the NRA. Each member of the industry who is supporting and complying with the Code will have an opportunity to vote for one Regional Director, his vote falling in the division in which the major percentage of his volume of business was done in 1933. Thus if the major part of your business was done in portraiture your vote will be counted toward the election of the Regional Director representing the Portrait Division of the industry in your region. The elected Regional Directors will then elect a Permanent National Code Authority, which will hold office for one year.

For Code purposes the P.A.A. office in Cleveland becomes the Portrait and Commercial Division Office of the Code Authority and the 60 Regional Directors of these two classifications are responsible to that office. In like manner the M.P.F.A. office in Rockford, Illinois takes on a similar responsibility and the 30 Regional Directors of the Photo Finishing Division will work through that office. Charles Abel and Guy A. Bingham being Divisional Directors of the respective organizations.

Sol. A. Herzog has been appointed General Counsel to the Code Authority, and George P. Ellis, Accounting Counsel. As rapidly as possible these two men, and others no doubt, will hold meetings in the key cities throughout the country to explain the Code to all and especially to instruct the Regional Directors as to their duties etc. The first group of these meetings are now going on but since they will be practically over before this appears there is no point in listing them. It is announced that the second group of meetings will cover the Pacific Coast and the northern states west of the Mississippi, and a third group the southern states. These meetings will take place at the earliest possible moment but exact dates are not as yet announced.

It is too early for anyone to say just what effect the Code will have, as so much depends upon the interpretation given to the Code by the Code Authority and the NRA representatives. The Code in its final form will seem entirely satisfactory to only a few. It is beyond the realm of possibility that it should be otherwise, for it had to

be worked out by a series of compromises. It seems to us highly important that photographers all over the country keep a few points strongly in mind.

1. Do not make a snap judgment on the Code.
2. Realize that whether or not your pet project has been included in the Code it does contain the possibility of tremendous benefit for the industry.
3. That these benefits are directly con-

ditioned by the active interest and support of the membership as a whole. Nothing is more fatal to the success of the Code than indifference among those working under it.

4. Give the most careful thought to the selections of the Regional Director for your division, and be sure and vote. Remember that he will directly represent your interests and that he elects the National Code Authority.

## Club Notes

### California Camera Club Annual Dinner

The California Camera Club's annual dinner is an affair of long standing, the one which took place on April 17th was in celebration of the 44th anniversary of the club. A large attendance is always assured and the occasion brings out many an old member and along with them many an interesting reminiscence. Traditionally a gay light hearted affair, the present dinner was no exception to the rule. Speeches there were in plenty but none too long for at a given signal the piano player started a little tune that was something about "out the window he must go". Nobody actually went "out the window" but the system is a most effective means of ending a speech. We know because they played for us. The main speaker of the evening was Mr. Ralph Young, well known Illustrative Photographer of San Francisco. Ralph gave a most interesting talk about what makes a picture, basing his discussion upon the club's monthly competition prints which were on the walls. The piano did not play for Ralph.

### New Club

Here is fast action. The Bakersfield, (Calif.) Camera Club, only two months old, already boasts a membership of fifty. That is a record for growth that few clubs can equal. Monthly print competitions are under way and an interesting and instructive series of lectures are announced in

the club's monthly bulletin "Exposures". Those desiring to communicate with the club should address Mr. Philip Healy, Pres., 2129-17th St., Bakersfield, Calif.

The most convincing evidence of the growing popularity of photography as a hobby lies in the surprisingly large number of clubs that are coming into being all over the country.

We feel that one element which has helped greatly in this growth has not been given deserved credit. We refer to the professional photographer. In this instance he appears in the person of Mr. Dorman who lent his studio for the organization meetings and has given much assistance to the club. We can name many another instance where the professional photographer has been a major factor in club formation and thanks is due them all for their readiness to extend a helping hand.

### New Club

The Camera Associates of Huntington (W. Va.) came into being on Jan. 28th, 1934, with the following officers in charge: W. Dovel Le Sage, Pres., Dr. Rudolph Kuhlmann, Vice-Pres., H. Monroe Baker, Print Director, and Walter L. Tetman, Sec.-Treas. Address the Secretary at P.O. Box 632, Huntington, W. Va.

The club is getting off to a splendid start by holding an exhibit of members prints at the Little Gallery, 918 Fifth Ave., Huntington, W. Va.

# Notes and Comments

## News Photographer Becomes Merchant

Friends and colleagues of Charles F. Allen, whose photographic career includes news photography for the old N.Y. World and the N.Y. Herald, commercial photography, and the making of fight pictures for the late Tex Rickard, will be pleased to learn that he has now opened Allen's Camera Exchange, at 137 Fulton St., New York City. Mr. Allen is looking forward to welcoming some of his old cronies in the newspaper game.

## Expert Individual Instruction in Photography with the Microscope

As well as giving elementary and advanced evening courses in Microscopy and Photomicrography under the auspices of the Bausch & Lomb Optical Company of California, Mr. George H. Needham, M.S., F.R.M.S., is excellently equipped to give personal instruction in all phases of photomicrography at his own microscopical laboratory. Those taking advantage of this instruction have been very pleased with the training in technique and results derived therefrom. For full particulars of the evening classes or for individual instruction planned for your particular needs apply to George H. Needham, 1679-23rd Avenue, San Francisco.

## Wilton Co., Western Agents for VereBest Products

VereBest Photographic Specialties comprise a very complete line of prepared formulae, chemicals, and convenient aids to the photographer, carefully prepared and packaged, and reasonably priced. There are Fine Grain, Varitone, Gravure-Brown, Tropical, and regular developers; reducers, intensifiers, toners, desensitizers, a negative dryer and a number of other helpful specialties too numerous to mention. It is safe to say that there is hardly a darkroom in the land that could not be made more efficient by the addition of one or more of these products, and this applies to the professional as well as the amateur. Write to the T. H. Wilton

Co. 717 Market Street, San Francisco, Calif., for a catalog describing the full line, and see these products at your dealer's.

## Just Off the Press

Central Camera Company, 230 South Wabash Avenue, Chicago, Illinois, has just published a large Bargain Catalog No. 75 of 132 pages, which is yours for the asking. Bargain Catalog No. 75 lists thousands of photographic bargains in cameras, lenses, accessories and supplies, and is the largest, most complete bargain publication we have ever seen. It is worth your while to send for this book before making your purchases.

## Dallmeyer Agent

We are pleased to announce that the firm of Chas. H. Huesgen & Sons, Inc., 22 E. 42nd Street, New York, are now the American agents for Dallmeyer lenses. Mr. Huesgen is too well and favorably known to the trade to need any introduction here. He assures us that all inquiries will be fully and promptly answered.

## Instoscope

The new Instoscope exposure meter impresses as being a very compact and efficient instrument. It measures about three inches in use and is calibrated to take care of apertures from F:2 to F:22; film speeds from 17 to 31 degrees Scheiner; exposures from 1/1000 second to 30 minutes. In operation the maximum of simplicity has been obtained, for once the meter has been set for the proper film speed no further adjustment is necessary. The meter is of actinic type and works as follows: The meter is placed to the eye and pointed at the object to be photographed. A vertical column of letters is seen and the dimmest letter that is readable is selected. These same letters are arranged in a band around the barrel of the meter, and in a vertical column below the letter the exposure times appear in black adjacent to a ver-



tical column of red figures, giving the lens aperture. An apparently simple innovation is of surprisingly great help in the accurate reading of the meter. The column of letters as seen in looking through the meter are not arranged alphabetically. This eliminates the psychological tendency to substitute memory of the alphabet for actual readable brightness. We have found by trial that if the arrangement of letters were known we would have read at least one letter further along the scale. The American and Canadian agents are Photo Utilities, Inc., 152 West 42nd Street, New York.

See the meter at your dealers or write to the above firm or to Willoughby's, 110 West 32nd Street, New York, N. Y.

### Carl Zeiss Lens Booklet

Carl Zeiss, Inc., 485 Fifth Avenue, New York, N.Y., or 728 South Hill Street, Los Angeles, Calif., have just issued a new booklet entitled "The Ten Contax Lenses" which will be sent free to anyone interested in miniature photography. The book contains considerably more information than the title would indicate and is in reality quite a complete treatise on the selection and use of lenses in miniature photography; including enlarging and projecting lenses, supplementary lenses, color filters, lens-hoods, and finders. Write for your copy today.

### Dealers Attention

The Wilshire Publishing Co., 3200 West Sixth Street, Los Angeles, Calif., has just issued a book entitled "Confidential Trade-In Values," by Earl T. Boaden. The author has over 25 years' experience in the business and for the past ten years has been carefully studying the problems of the photographic trade. The lines given below are typical of the listing given in the book and refer to the 4x5 R.B. Auto Graflex K.A. F:4.5 lens No. 34:

	List Price	Trade-In	Re-Sale
1918.....	\$177.00	\$22.50	838X
1933.....	232.00	60.00	8903X

A separate listing is given for each year from 1918 to the present. The book is on sale only through jobbers, and a pre-publication offer is made involving a saving of \$2.00.



### New Rolleicord

Practically speaking, the new Rolleicord camera is simply a Rolleiflex with certain differences which make it possible to sell this camera at a much lower price. The most important differences are as follows: F:4.5 Zeiss Triotar taking lens instead of the F:3.8 Zeiss Tessar (F:2.8 on 4x4 models); the automatic film transport and counting device is not included in the Rolleicord, and the same is true of the joint viewing window for shutter and diaphragm readings. With these and a few other minor exceptions all of the many well known features of the Rolleiflex camera are embodied in this new instrument.

The case is attractively finished in black and silver metal; 12,  $2\frac{1}{4} \times 2\frac{1}{4}$ " exposures are obtained on an eight exposure  $2\frac{1}{4}$  by  $3\frac{1}{4}$ " roll film; the convenient one-lever Compur shutter is present, and the various accessories such as Filters, Proxars, Panorama Head, Stereo Fitment, Iris Stop, etc. are interchangeable between the Rolleiflex and the Rolleicord. See this splendid camera at your dealer's or write to Burleigh Brooks, 127 West 42nd Street, New York, N. Y., for full information.

# Classified Advertisements

Items advertised in these columns may be purchased C.O.D. subject to examination and C.O.D. subject to ten days free trial if sent by express. If in doubt, safeguard yourself.

## OUTFITS FOR SALE

◆Cine-Kodak, Model "K," f:1.9 lens, black carrying case, with Model "c" Kodascope projector. Both same as new. Real bargain at \$125.00. Examination privilege. F. D. Stoll, 104 W. Chestnut St., Louisville, Ky.

◆Stereo Craflex, condition same as new, fitted with matched Kodak Anastigmat Lenses f:6.3, with one film holder. Sold formerly at \$250.00. Will sell at \$95.00. Eastman Kodak Stores, Inc., 709 S. W. Washington St., Portland, Ore.

◆3¼x4¼ R. B. AutoGraflex; film pack adapter; focusing back; f:4.5 Kodak Anastigmat 7½"; case. Used very little. No trades. Phone: WALnut 4484, or write H. T., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆Leica equipment, practically new. Standard Model E (can be converted to D for \$34.00), Elmar f:3.5 lens, with Everready case, \$60.00. Sliding focusing Copy Attachment, \$15.00. Leicascop \$5.00. Phone WALnut 4484, or write H. T., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆Wold Air Brush Model A-1 complete with case, slightly used. For quick sale \$15.00. Glen H. Spurgeon, Box 184, Caldwell, Idaho.

◆"Linhof Precision" 9x12, Zeiss Tessar, and equipment. Maximar B Camera, less lens, as new. Faull, 2214 Elsinore St., Los Angeles, Calif.

◆3¼x5½ Herneman plate and roll camera, Carl Zeiss f:6.3, 6"; double extension, 3 plate holders, and leather case, like new. Cost \$100.00, for \$20.00. 10x15 cm. Goerz Ango, f:4.5, 18 cm. adapter, plate holders, and leather case, cost \$130.00, for \$25.00. J. Kaitis, 25 Cottage St., Jersey City, N. J.

## HELP WANTED

◆Wanted. Home portrait solicitor, lady or gentleman, good territory, permanent. 203 Broadway Theatre Bldg., Tacoma, Wash.

◆Photographer in business wants partner who is not afraid of hard work. Must have some experience and small capital. References required. Studio located in suburban town. M. E., c/o Camera Craft, 703 Market St., San Francisco, Calif.

## LEICA OWNERS

Trade in your present Leica outfit on the New F Model with Summar F2 lens. Liberal allowance made. Send for description of new, portable copying device.

MINIATURE CAMERA SHOP  
1600 Post St., San Francisco

Detailed directions for making twelve new and beautiful lightings, from my \$30.00 Course in Lighting, mailed with twelve floor-plan diagrams for \$2.00. Halftone illustrations free while they last.

Beattie—913 N. Sycamore Ave., Hollywood, Cal.

## POSITIONS WANTED

◆Young man, twenty-one, competent, desires position as assistant in portrait studio anywhere in California. One year's experience. Willing to prove ability. Clark C. Stanley, 3120 Linden St., Oakland, Calif.

◆Wanted, position by first-class workman, studio or home portrait. Charles Koehn, P. O. Box 11, Lakefield, Minn.

◆Young man, good education, graduate of photographic school. Have had 5 years' experience, 2 years as studio manager. Expert cameraman and colorist. Available immediately. E. C., c/o Camera Craft, 703 Market St., San Francisco, Calif.

## OUTFITS WANTED

◆Film pack camera, Zeiss Ideal, Jewel, Recomar, reflex or similar type. Cash. Phone HEMlock 1297, or write E. R., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆4x5 R. B. Auto Graflex with or without lens. Give full description and price. R. L. Smith, Box 117, Fort Lewis, Wash.

◆Small Rolleiflex (late model) with F:2.8 lens. Grace Greenway, 4324 Maryland, St. Louis, Mo.

◆Series D Revolving back Graflex 4x5, Tessar or similar lens, excellent condition essential. State cash price. R. A. Fraser, 301 Westlake Square, Seattle, Wash.

## FOR SALE OR EXCHANGE

4x5 Conley, 5x7 Premo, Vest Pocket Kodak, No. 1 Autographic Kodak Special, all with Anastigmats. 7" Verito, 12" Manhattan triple convertible, and other lenses. Various photographic magazines, 1908 to 1917. Want 2¼x3¼ plate camera or lens, and portrait lens. C. Lillie, Van Meter, Iowa.

◆8x10 Eastman view camera. Eastman large size trimming board. Several lenses and other stuff. Want 11-inch focus anastigmat, shotguns and rifles, Colt and S. & W. revolvers. W. Quackenbush, Granger, Minn.

◆Will trade or sell by piece, my studio and view outfits and equipment. Write for list and bargain prices. Want enlarger. Eunice Davies, Dayton, Wash.

GOOD ALLOWANCE for Firearms, Microscopes, Binoculars, and Celestial Telescopes, on any photographic equipment, motion picture or still, and Bausch & Lomb Spotting Scopes, and Binoculars.  
NATIONAL CAMERA EXCHANGE, 5 South Fifth Street, Minneapolis, Minn.

## CINEX 16 MM. FILM

Regular speed — 100 ft. \$3.25; 50 ft. \$1.75. Nonhalation supersensitive Panchromatic for night shots, interiors and exteriors 100 ft. \$4.50. Processing in San Francisco included. Send for Sample. CINEX FILM LAB., 221 Golden Gate Avenue, San Francisco.

# C A M E R A



"Peter and Wendy"

21st Pittsburgh Salon

T. W. Bennett



# CRAFT

REG. U. S. PAT. OFFICE

**JUNE 1934**  
**VOL. XLI Number 6**  
**SAN FRANCISCO**  
**• CALIFORNIA •**  
**PRICE 20c**



## In This Issue

**CREATIVE PICTORIALISM IV . . . William Mortensen**  
**PITTSBURGH SALON . . . . . Charles K. Archer**  
**HOW IT WAS DONE . . . . . Walter P. Bruning**

# Projection Control

by

WILLIAM MORTENSEN

A booklet describing in full detail the four methods of controlling a photographic image during enlarging. These methods are:

1. Control by framing.
2. Control by local printing and "dodging in."
3. Control by alteration and distortion.
4. Control by combination and montage.

The degree of control possible with each method is fully illustrated by comparison of a "straight" print with a controlled print of the same subject.

Figure 1. Exposed for the light area; balanced lighting.



Figure 2. Exposed for the shadows; balanced lighting.

The main body of the text is reprinted from the November and December 1933 issues of *Camera Craft*. Our supply of these two issues fell far short of the demand, and we have been urged from many quarters to issue the articles in book form.



## ADDITIONAL MATERIAL

Some additional material that did not appear in the articles is included in the book. There are illustrations and a description of Mr. Mortensen's enlarging easel, showing his arrangement for obtaining the tilting of the easel required in elongating or distorting the image. Also illustrations and a more complete description of the procedure in local printing.

## AND

A completely new added chapter, with four illustrations, on the exposure and development of the negative for the purposes of Projection Control. This is a very important chapter as Mr. Mortensen's technique is considerably different from ordinary practice.

---

**Price \$ .60**

---

at your dealer or from

**CAMERA CRAFT PUBLISHING CO.**

703 Market Street, San Francisco, Calif.





*Tiny Negatives*

ENLARGE TO

**MIGHTY PRINTS**

with **AGFA FINE - GRAIN ROLL FILM**

With perfect confidence, this diminutive member of the Plenachrome Family invites examination—under the magnifying glass or through the lens of an enlarger. For Fine-Grain Plenachrome inherits all the desirable characteristics of its famous family—high speed, complete orthochromatic color sensitivity, and a truly effective anti-halation coating.

To these qualities, this special roll film offers an even greater fineness of grain, allowing perfect enlargements of many diameters—

and a special non-abrasion top-coating, protecting the emulsion from physical harm. Small wonder that Fine-Grain Plenachrome has passed the examination of so many discriminating amateurs "with greatest praise".

Fine-Grain Plenachrome is available in several sizes: FA8 (for all cameras using vest-pocket film), FB2 (for cameras using  $2\frac{1}{4} \times 3\frac{1}{4}$  roll film for either full or split-frame pictures) and also in special cartridges for Leica, Contax, and similar cameras, and for the Memo.

*Made in America by*

**AGFA ANSCO CORPORATION**

BINGHAMTON, N. Y.



BRANCHES:

BOSTON NEW YORK CINCINNATI CHICAGO KANSAS CITY SAN FRANCISCO LOS ANGELES TORONTO

Please Mention Camera Craft when Corresponding with Advertisers



# Confidential TRADE-IN VALUES OF PHOTOGRAPHIC EQUIPMENT

FOR  
DEALERS  
ONLY

The first book ever compiled of trade-in and resale data for the photographic industry. Mr. Earl T. Baaden — for over twenty-five years an experienced representative of wholesale and retail houses — is now completing his ten year research to help dealers make quick, authentic and profitable appraisals. Write your jobber today for full particulars — and special pre-publication offer.

*You will want this knowledge!*

SOLD *Only* THROUGH  
YOUR JOBBER

WILSHIRE PUBLISHING COMPANY  
3200 WEST SIXTH ST. LOS ANGELES

## SIMPLIFIED DEVELOPING FOR ROLL FILM

The new Reelo Tanks bring modern methods right into your workroom. The film is loaded directly on to the bakelite reel and closed in the tank. All other operations may be conducted in full light. Available in three sizes.

35 m/m (Leica) film size ..... \$7.25  
No. 127 or 129 film size ..... 7.50

Post paid in U. S.

**TRAINER & PARSONS**  
FINE CAMERAS

228 POST STREET  
SAN FRANCISCO, CALIF.

# COMING

William Mortensen. And now we have big news for the Minicams. Mr. Mortensen's series of two articles on the Use of the Miniature Camera for Pictorial Photography will start in our August issue. We don't need to tell you how good, how very helpful, these will be. No single Minicam can afford to miss them.

Cinema Section. In our July issue Mr. Palmer will give a complete exposition, with all the necessary formulae, of the reversal process for finishing 16 mm. reversal film. A really sound and detailed description of the process is difficult to find among photographic literature. This article will enable the amateur to do his own finishing at will.

Robert G. J. Desme has prepared a very interesting and instructive article on Trick Photography. On various occasions all of us have opportunities to make use of a number of the tricks described in this article. If not in a joking way then for some more serious type of work. You will find Mr. Desme's article detailed as to technique, and an idea stimulator as well.

P. H. Oelman is a successful illustrative photographer, an instructor in photography, and a prominent pictorialist. Several of his pictures have won awards in our advanced competition. He is convinced that the practice of still life photography is a most practical method for learning a great deal about both composition and lighting. His article on Still Life Photography will be written from that view point.

Beauford B. Fisher is a name which we believe Camera Craft readers will soon learn to treasure, for he reveals himself as an original experimenter, in other words, just the sort of man who has something valuable to say to the student of photography. His pictures have been hung in virtually all of the large Saloons throughout the world. He has recently taken up photography as a profession. An example of his work appeared as first prize in our Advanced competition for November. We pointed out that this picture was an experimental example of fine technique in the paper negative process in as much as the skin textures had been so well maintained. Mr. Fisher will describe the paper negative process in full detail in an early issue.

Edwin C. Buxbaum, A.R.P.S., whose name is already familiar to the readers of this magazine, has prepared a carefully worked out series of four articles on Miniature Camera Technique which we know will prove very helpful to all Minicams. The sections on films and filters are of especial value and approach the two subjects from a new angle that is most instructive.

J. G. F. Druce, M.Sc. (Lond.), R. Nat. Dr. (Prague), F.I.C. is an English scientist of international reputation not only in photography but in other scientific fields as well. His article, Some Remarks on Infra-Red Photography, is authentic, interesting, and original.

P. Douglas Anderson, A.R.P.S., whose article on "Outdoor Portraiture" in our October issue received much favorable comment, has devised a splendid means of illustrating the various lightings that may be obtained outdoors. His article "More About Outdoor Portraiture" will appear in an early issue.

George H. Needham, F.R.M.S., whose article on "Low Power Photomicrography" appeared in our February issue is now working on a second paper which will discuss the ramifications of high power work. This paper will be of great interest to those who are doing advanced work in photomicrography.

Albert Jourdan has prepared a very instructive article describing just how he performed an actual commission for a montage photograph, "A Job of Photomontage" will interest both the professional and the amateur for the principles of montage have a wide application.

Thomas A. Wilson, M. S., has devoted much time and study to the subject of composition. He has prepared a series of three illustrated articles which we are confident will clear away much of the mystery surrounding this important aspect of picture making.





*"Cesare Borgia"*  
William Mortensen

# Venus and Vulcan

An Essay on Creative Pictorialism

William Mortensen

## 4. Fallacies of "Pure Photography"

THERE have always been purists in art just as there have been puritans in morals. Purists and puritans alike have been marked by a crusading devotion to self-defined fundamentals, by a tendency to sweeping condemnation of all who over-step the boundaries they have set up, and by grim disapproval of the more pleasing and graceful things in life. Both of them, in their enthusiastic zeal for putting down gross abuses, are prone, in Savonarola fashion, to throw everything onto the fire. So, instead of merely fulfilling their salutary function of clearing out rubbish and getting down to basic principles, they have set themselves perversely in the way of further progress.

In the field of photography there had long been many sins committed with the aid of a camera that cried out for correction. The snapshotter was busy giving perpetuity to banalities. The photo-artist of the Fuzzy-Wuzzy school was, with the aid of diffusion lenses, expressing himself in terms of cotton wool. An aimless dilettantism marked the efforts of the average amateur, and a bare-faced ignorance of technical fundamentals marked the efforts of many a one who called himself a professional. And finally there was an emphasis on the quick and easy, cheap and nasty commercial aspects of photography.

Here, surely, was opportunity for the reformer and his torch and a rousing 'bonfire of vanities'. Such a reformation movement was forthcoming in the work of the so-called purists. Rationalizing their prejudices into a definition of the aim of photography, they found it to consist in an objective rendering of fact free from any "conceptions reminiscent of other mediums". Manipulation or retouching of negatives or prints they shunned as the plague. They stressed the need of simplicity and sincerity, and the vital importance of solid technical knowledge. Their work is uniformly hard and brittle, shows technical competence, and consistently avoids any subjective interest. And after the perennial fashion of reformers, they have duly erected their reforms into a code, and have

chosen to regard a good clean contact print as the end of photography rather than as its indispensable beginning.

In earlier articles of this series I have endeavored to outline somewhat the positions of the Realistic (or purist) and the Non-realist (or Creative) groups in photography. In the present article I intend to examine critically the major tenets of the Realists, with the view of pointing out some of the fallacies that, it seems to me, infect their thinking. In so doing, I, for the most part, omit from consideration the crowning fallacy of all—a would-be art that is unselective; for this aspect of the matter was largely covered in the last chapter.

The Realists have laid great emphasis on the purity of their art—"pure photography", unpolluted by any of the methods, mannerisms, or qualities of the graphic arts of painting, drawing, etching, etc. "Purity" is conceived to consist in limiting photographic expression to the mechanically objective representation that is inherent in the uncontrolled camera, and in limiting processes to the simplest and most primitive type. Thus the photo-chemical process, seizing its tail in its mouth, finds its realization in itself. Purity in art is an ancient topic for argument. In the fifth century before Christ, Euripides was sharply taken to task for bringing human problems into his plays and thus debasing the severe purity of the dramatic form. Shakespeare, in Voltaire's opinion, was a talented barbarian who understood nothing of the niceties of play-writing. Beethoven and Wagner were both charged with violating the purity of their medium—Beethoven by bringing a philosophic element into his music, Wagner by developing his music on dramatic lines. However, it seems exceedingly doubtful that purity in art is either possible or desirable. Imagination is a wayward and wilful wench, and when she is on the loose she is not to be held in check by any arbitrary boundaries that divide one medium from another. The best work in any medium often contains "conceptions reminiscent of other mediums". Michael Angelo, the sculptor, brought sculptural qualities to his painting. Rembrandt was a master of both painting and etching, and used the two mediums to obtain similar effects. The quality of Beethoven was unchanged, whether he wrote for piano or symphony orchestra.

Photography as a technique and an art is very young, much too young for any one to say just what is "photographic". So, even if it were desirable, it would be an exceedingly presumptuous act to fence in a narrow tract and label it "pure photography". Regarded merely as a means of objective representation, photography is a shallow medium possessing neither breadth nor emphasis. To confine oneself to this aspect of photography is to be guided by the weakness rather than the strength of the medium.

In many cases the finely enunciated precepts of the Realists are contradicted by their own practice, oftentimes because these precepts are impossible of realization under the limitations which they have laid upon themselves. "Honesty and sincerity", for example, which the Realists mention as being among their aims, are certainly worthy objectives, and are certainly essential qualities of great art; but honesty and sincerity are not to be achieved by mere repetition of superficial facts. It may be





*"Nude Study"*  
William Mortensen

a fact (let us say) that Mary Jones has a pimple on her nose; but to portray the pimple in all its effulgence would be neither honest nor sincere, for to do so would imply that the pimple was as important as Mary, and even might be regarded as suggesting that Mary partook of the annoying nature of her blemish. For reasons that I will discuss when I come to the matter of texture, faithful representation of surfaces often vitiates or even contradicts the essential character of the subject.

"Staticism" in portraiture is another quality sought by the Realists. By this expression they mean photographing a head or figure in objective terms as if it were a piece of sculpture. Given appropriate subject matter, such impersonal handling may be very impressive; but here again the Realists are betrayed by their unselective and literal rendering of details. Accidental, temporary things thrust themselves into the attention. A wisp of hair out of place, a skin imperfection, an assertive pattern in the dress—and the desired static, sculptured quality breaks down into a mere conglomerate of detail.

"Simplicity" is another excellent standard which the Realists have set themselves—simplicity in equipment and in rendering. Unquestionably such simplicity characterizes the best in art. But, with the Realists, simplicity in rendering is often lost through their passion for irrelevant detail. As to simplicity in equipment—this seems to be an ideal to which they pay lip-homage only. In a recently published exposition of purist technique and methods, the author lists in his simplified equipment—three cameras and six lenses. Three very similar portraits are shown as the product of two cameras and three lenses. Simplicity of equipment is of value only because it enables one to be master of his tools and concentrate on the sole end of photography—the making of pictures. To thoroughly master three cameras and six lenses in all their permutations would require a considerably longer life-span than Providence has allotted to photographers. An imperfectly mastered tool is largely master of its user. So great is the technical obsession revealed by some of the purists that it seems not illogical to suggest that they keep their prints at home and send their cameras to the salons.

A further curious conflict of principle and practice appears in the Realist's identification of tone with emotional characteristics. That tone has such emotional qualities I do not deny: but how came such an untamed maverick as emotion to stray into the chaste pastures of the purists? Emotion is a subjective quality, and is strange, not to say dangerous, company for "pure objectivity". Emotion is a very unruly critter, and is likely to play hell with the purist china-shop. Indeed, there is evidence that the destructive work has already begun; for the exposition of Realist technique to which I have already alluded refers to tone as something admitting of *control*. This is, of course, a fatal concession, and gives the whole show away. For if an objective "record of reality" is the aim, then a "photometrically accurate presentation" is the only possible presentation, no matter how aesthetically distressing it might be. If tone is granted to be subject to control, why not line also, which has equal emotional significance? And if line, why not shapes and forms? And if shapes and forms, why not allow elision or emphasis of detail?



*"Wind"*

*William Mortensen*

And if all these things are allowed, what becomes of the "record of actuality"? . . . Sunk without a trace!

So much for the inherent contradictions of the purist position. More serious are the deviations of the purist tenets from basic art principles. Especially fallacious is their assumption that artistic truth lies in a complete rendering of literal detail, in a "record of actuality". Truth in art lies in the rendering of *experience*—or rather in the rendering of things-as-they-are-experienced, not of things-as-they-are. Psychological truth, not scientific accuracy, is the species of veracity with which art is concerned—conformity not to fact, but to the mind's way of apprehending fact.

The mind in apprehending a thing does not grasp it as a collection of details simultaneously and equally important. Rather, the mind moves,

by the momentum imparted to it by the initial impression, to an apprehension of the thing as a whole, not only as it *is*, but as it has been *previously* experienced, and even as it has been coloured by emotion. This sort of mental movement (which is what the psychologists call "perception") may follow either of two different patterns. (1) A few details or attributes may be developed to a completely filled outline. (2) A suggestive or familiar shape or configuration may be supplied with necessary detail. As an example of the first sort of pattern: I see a girl crossing the street a block away, and I recognize her as my old friend, Mary Jones. As a matter of fact, her dress is the only thing that I recognize; but from the momentum given by this suggestion my mind moves to a convincing presentation of Miss Jones—the colour of her eyes, the way she does her hair, the kind of scent she uses, and what she said to me a week ago Tuesday. As an example of the second sort of pattern: I recognize Mary Jones, not from a significant detail, but from a familiar quality of figure or posture. From this I fill in the essential detail. As an equally familiar and more striking instance of the second type I may cite the common human propensity for seeing "pictures in the fire", and finding faces, beasts and monsters in accidental configurations of clouds or stains on the wall. Though the resemblance may be of the vaguest, so eagerly creative is the unencumbered mind that it moves instantly to supply detail. . . .

"Methinks it is like a weasel.

"It is backed like a weasel.

"Or like a whale?

"Very like a whale."

Graphic art endeavors always to expedite and facilitate the mental movement of the perceptive process. This is the advantage of breadth of handling—large simple forms and open planes wherein the mind can move freely through the picture. But if the forms are broken up and the planes cluttered with minute inconsequentials, the mind stops, baffled and resentful. For the mind in a mood of aesthetic contemplation is the mind on a holiday, and simply will not be bothered with the nagging logic of things-as-they-are.

Herein lies the particular fallacy of the Realist's preoccupation with the literal rendering of the minutiae of *textures*. For in textures it is peculiarly evident that too much concern with things-as-they-are may prevent one from attaining the perceptive truth of things-as-they-are-experienced. To render flesh, for example, in terms of pores, hairs, and wrinkles, no matter how accurately it is done, fails utterly to give an *experience* of flesh. Our perception of flesh is to only a limited extent made up of visual facts: impressions gained from other senses, such as warmth, smoothness and firmness, are just as important as surface topography. These qualities must be suggested to give the true experience of flesh texture. Such an experience cannot be given by a technique that invites you to trace the wrinkles and count the hairs.

With numerous references to the "logic of art", the purists have drawn attention to the fact that the camera is essentially a recording instrument, insisting that this fact should condition and limit the product.

To my mind, the logic of art would indicate, rather, that this fact is an irrelevant one, just as irrelevant to the photographer as the fact that paint smells of turpentine is to the painter. As well, by strict logic, define the etcher's needle as "an instrument for scratching" and then limit his activities to nothing but scratching.

Although they allow themselves the unphotographic luxury of "spotting" their prints, the Realists protest bitterly against retouching of prints or negatives. Why this intense prejudice against retouching? It belongs to the selective method of all arts. Painters retouch. Etchers retouch. Writers retouch. The notebooks of Beethoven reveal the enormous amount of retouching that went into his work. For a photographer to forewear retouching seems mere affectation.

*The whole program of the purists inclines to overlook the basic truth that the final concern of art is not with facts, but with ideas and emotions.* All who talk glibly of new art forms and new techniques must be prepared to cope with that most laconically cruel of all questions: "And so what?" Or to put it less tersely: "What are you trying to tell with your forms and your techniques?" Technically speaking, photography is a matter of facts. The image produced by the lens is an optical fact; fixed on paper, it becomes a chemical fact. *A chemical fact can never become a picture unless an idea and an emotion are also present; and these are qualities that cannot be added to the developer.*

Many a lowly news photographer in his illustrative embellishments of such themes as Love Nests, and Heiress Elopes with Chauffeur, and Scion of Wealthy Family Leaps to Death, has for years been producing technically perfect "records of actuality" because his job required it of him. It has never occurred to him to make artistic claims for his pictures. Yet now, like Moliere's Monsieur Jourdain, who was so amazed to discover that he had been talking prose all his life, the press photographer may learn, to his consternation, that he is a purist.

The principal fruit of the purist movement so far has been a series of excellent finger exercises in technique. This is well and good. Most aspiring pictorialists don't give themselves half enough hard, grinding work of this sort. But the purists (and here is my ultimate quarrel with them) insist emphatically that their finger exercises merit artistic consideration. Such consideration, I feel, cannot be given them until they are through with ostentatiously playing scales in the key of C.

\* \* \*

It is a matter of common knowledge that Vulcan, the spouse of Venus, was lame in one leg. So far as I am aware, no one has ever told how he met with this misfortune. Thanks to my researches into Pom-pilius the Younger's monumental and little-known work on *The Domestic Life of the Gods*, I am for the first time able to offer an adequate explanation for Vulcan's deformity.

It all goes back to one quiet evening at home on Olympus. Venus and Vulcan were sitting in front of the fire, he twiddling his toes before the blaze, and she stringing beads of lapis-lazuli into some lovely thing.

After a long silence, Vulcan spoke. "Do you know, dovey," he said, "I have just heard of a new way of making pictures."





*"Magnum Opus"*  
by Vulcan

"Indeed?" said Venus absently, slightly wrinkling her lovely brow over her bead work.

"Yes," said Vulcan. "It seems one draws the picture with light instead of with a stylus."

"But are not all pictures painted so?" remarked Venus sentimentally. ". . . By the light that never was on land or sea?"

"Eh?" said Vulcan.

"Nothing. Just a thought. Pray proceed."

"I wish you wouldn't interrupt me, darling," said Vulcan irritably. "Where was I? . . . Yes. One makes pictures with a black box and a burning glass and a few odds and ends of chemicals."

"Pictures?" said Venus skeptically. "What sort of pictures?"

"Damn good pictures," said Vulcan. "Pictures that look like what they are supposed to be. Not the sort of pictures that this Apelles paints, leaving out a lot of things that any fool would know were there. Now, I could make a picture—" He broke off. "Just why are you smiling in that nasty way?"

"Oh, Vulcan," she said in slightly smothered tones, "you make a picture?"

"Why not?" said Vulcan defensively. "I understand chemistry and



"Portrait of a Man"

Joseph Berman

21st Pittsburgh Salon

physics and optics. Furthermore, I am a good blacksmith." He paused. "For one as lovely as yourself, sweetheart," he said, with ominously careful self-control, "you have a most annoying laugh."

Venus, past reply, waved her hands helplessly.

"You don't think I could?" he stormed. "Why, I could take a picture of our back fence that would look almost as much like a back fence as our back fence does."

A strangled shriek was Venus' only comment.

Vulcan lunged to his feet, his black beard bristling. "Very well," he shouted, "I'll show you. I'll show you, by Jove. I'll take a picture. I *will* take a picture, if I break a leg doing it." So saying, he stamped out of the room. Venus sighed, wiped her streaming eyes, and returned to her bead work.

Two days later Vulcan clumped into her presence on crutches. "Precious lamb," said Venus, springing up, "what *have* you done to your leg?"

"Oh, damn my leg," said Vulcan, loftily. "Look at *this*?" And proudly he thrust into her hands a picture.

"Why, to be sure," said Venus after a moment, "this is your dear old demijohn, isn't it? And surely this is a cabbage. And here is an egg." She smiled at him. "How terribly clever you are, darling."

. . . And that, my friends, is how Vulcan broke his leg.

# The Pittsburgh Salon

Charles K. Archer

THE Pittsburgh Salon of Photographic Art has been an annual event in the spacious galleries of the Fine Arts Department at the Carnegie Institute, for twenty-one consecutive years. It passed successfully thru the heart breaking years of the World War and has survived the recent period of economic reconstruction. Whatever reasons there may be for its continued success, I think a major factor has been the sincerity of those responsible for its conduct and the impartiality and fairness of its several juries.

The exhibition galleries are among the finest in the world, the same rooms in which the famous International Exhibition of paintings is held annually. The aim of the Photographic Salon Group has always been to show the best in Pictorial Photography which could be assembled here each year. But who shall say what is best? We do not attempt to pass judgment on the pictures but invite three pictorialists from other cities to make the selections. It is an arduous task and it is asking a good deal of a man to give two days of his time and ride two nights on a sleeper without monetary recompense, knowing that his work will be the cause of disappointment to so many, even amounting to resentment in some cases. *But No One Has Ever Declined the Invitation*

Art being what it is and jurymen being human, make for diversity of opinions and often decisions with which a combination of three other men would disagree. However I have never seen a jury at work without being impressed by its sincerity and honesty of purpose. It may not be amiss to recite briefly the procedure in making the selections for the 1934 Pittsburgh Salon. It will show how seriously the judges attacked the problem and how patiently they worked it out. Here is the picture.

The members of the jury are seated. About five or six feet in front of them is the easel upon which a print is placed for their consideration. Several feet behind the judges are the observers who are not engaged in the routine of handling the prints. The Salon committee is taking care of that. The judges have elected one of their own members as chairman



*"Where the Bee"*

21st Pittsburgh Salon

*F. R. Altwater*

who shall announce their verdict. Their only instruction is that this is to be their show and the committee has made no restrictions as to subject matter, printing processes, print size, print quality nor print quantity—the number to be selected. The routine method of handling the prints during the sessions is explained and it is stated that the judges may vary this routine if they so desire.

The wish has been expressed by some entrants that their prints might be put up for consideration at some specified period of the sessions. Whether or not a print is more or less favored by being judged rela-

tively early or late, the committee in an attempt at fairness, has adopted the plan of scattering the prints of each entrant throughout the total number of entries. As the judges are looking for good pictures, without regard to the maker's reputation, the names of the artists are, as far as possible, withheld. Of course there are some workers whose style is distinctly their own and their prints are not hard to identify. Their work is usually distinguished. We are now ready for the first viewing.

One print at a time is placed before the judges and the result of their decision in each case recorded, until all of the fourteen hundred prints submitted have passed before them. Up to this point any print which has been accepted for hanging has the distinction of having been accepted by unanimous vote. If only one judge voted against a print it was held for reconsideration at the next viewing. If two of the jurymen voted "no", the print was, for the time being, rejected.

The second viewing proceeds with those prints which were set aside for reconsideration, and an unanimous vote is no longer required, since all decisions after the first viewing, result from a majority vote. It should be quite clear then, that no one judge alone can prevent a print from being hung.

During the second viewing, or "reconsideration", it is customary to vote to accept or reject a print, altho we have been requested by some juries to hold prints again for a second reconsideration. After all this work has been finished the prints have been selected for the exhibition, that is—may be, for now the judges ask to see all the accepted prints, one by one, reserving the privilege of ordering any print laid aside, meaning that someone is still not satisfied and the print is again in jeopardy—tho it nearly always makes the grade. Now all the accepted prints are out of danger from any further reviewing, but the judges are not yet thru.

They still want to give those prints in the pile of rejects another chance; and by this time nearly nine-tenths of all the prints submitted are in that pile. Tho it is a heavy assignment at this late stage, the judges wade thru it patiently, looking at each print; and it sometimes happens, as it did this year, that a few prints from this lot are added to those already accepted. To the selection as now made, add the prints contributed by the members of the jury and the list is completed.

Considering that it would be embarrassing for the jury to have to pass on their own prints, each number is invited to hang four prints *hors concours*. And to eliminate a further cause for possible embarrassment, the local members of the salon group refrain from signing their names on their prints until after all judging has been completed. It may be interesting to note some results in particular from the selection of prints as now made.

At the end of the first viewing, we find that the jury had accepted unanimously, sixty prints and had held for reconsideration, sixty-five. On review of these sixty-five prints, fifty-six were selected by majority vote to be included in the exhibition. Then from all the prints which had not as yet been accepted, eleven were chosen as worthy of a place in the show. Including the ten prints by members of the jury, the exhibition finally consists of one hundred and thirty-seven prints.





*"Trio Study"*

*Nickolas Boris*

21st Pittsburgh Salon

Among the one hundred and five successful contributors we find, aside from the jurys prints, that only two men are represented with four prints each; and the record shows, in addition, that three of each of their prints were by unanimous vote.

We salute Alex. Keighley of England and Frank Y. Sato of San Francisco. There are three names, each credited with three prints and we salute F. Mora Carbonell of Spain, Mrs. Christine B. Fletcher of San Francisco and Dr. Max Thorek of Chicago. Thirteen exhibitors are credited with two prints each, while there are eighty-four, each showing one print.



*"Reflective Mood"*

21st Pittsburgh Salon

Neil Kirby

In a check up of the States, California and New York lead with eighteen artists, but California is represented by twenty-eight prints and New York by twenty-three. Pennsylvania is a close third, followed in order by Illinois, Ohio, Michigan, Massachusetts, New Jersey, Wisconsin and eight other states. There are fewer foreign prints catalogued, but more foreign countries than last year. The average number of prints per person accepted last year was 1.65. This year the average is 1.23. These figures may be interpreted to mean either that it was harder to pass one jury than the other, or that the prints measured up better one year than the other.

As I watched print after print pass before the judges, it seemed to me that they were looking particularly for print quality, as well as for composition; clarity of expression, as well as something worth expressing.



*"Mere Man"*

21st Pittsburgh Salon

*Herbert L. Spencer*

Originality? Yes, if it meant anything and was well executed. These three men, Pirie MacDonlad of New York, C. B. Seifert of Toledo and R. A. Barrows of Philadelphia, evidently were demanding prints that were distinguished and worthy of the honor of being shown in a great institution devoted to art.

Perhaps the most common fault in the prints submitted might be designated as one of confusion, in that there were too many objects warring with each other for attention, the whole lacking in concentration. Many prints were "muddy", perhaps because the author was working in some process, of which he is not yet master. Prints were submitted in nearly all the so called control methods, but that of itself did not mean a thing to the jury.

Bromides still lead with fifty-five prints and chlorobromides follow



*"Yamato"*

*M. A. Shimoda*

21st Pittsburgh Salon

with forty-one prints, combining to make over seventy per cent of the show. The general trend seems to be toward paper negatives and chlorobromide contact prints. It is easy to exercise considerable control in preparing the paper negative and it is not difficult to obtain good quality in the printing. And then duplicate prints can be turned out with facility if one wishes to contribute to the contemporary salons.

So called "modern photography" seems to be on the wane. The photographing of buildings all topsy turvy and the worm's eye views no longer surprise, and without the element of surprise there is not enough. Freaks and fads have a limited life. I have already stated what the jury seemed to be looking for and how they agreed finally on their selections. With their judgment, I imagine, most of those represented in the catalog, will agree, as will also many of us who were not so fortunate.

# How It Was Done

Walter P. Bruning

THE most exquisite and least practiced of all expressions in photography is the grand landscape; perhaps because it is the least suited to quantity production and needs real inspiration to see beyond the negative. Almost all of us enjoy the beauties of a country scene; its marvelous color, the beauty of its skys, the lovely play of cloud shadows across the scene, changing the mood with each variation of light and shade.

I wish I could inspire more American Pictorialists to work up landscapes in the way of the old Masters, with the sensitive inspiration of the artist present. We should not be content with just a snap of reality.

In spite of our many very fine workers, photography as a whole, seems to have degenerated into a series of stunts. There is too much striving for originality, Salon juries often accept things which are simply different, bizarre or striking. Why ape our modern painters to establish photography as a fine art; why so much ugliness, when art means to enhance, to show a beautiful mood, to show the soul of the fine mind that conceived it?

Gainsborough's, Corot's, Rosseau's, and Turner's, paintings; Beethoven's and Wagner's music will thrill and be enjoyed when Cezanne, Van Gogh, Picasso, Mahler, Gershwin and Gertrude Steins dribble have been laughed at and are forgotten.

So let us come down to earth and be ourselves in creating beauty; no new medium will succeed, and photography has only partly succeeded in establishing itself as a fine art, unless the artists strive to create something sane, something one can live with and never tire of.

Certainly there is no other monochrome medium, that will reproduce the lovely quality, the rich detail of light and shade in a beautiful landscape, as may be done by photography.

Should the pictorialist create but one masterpiece in his life, the thrill and anticipation of perhaps another, some time, would keep his hobby alive thru' all the disappointments.





*Print No. 1*

American landscapes are difficult; the great spaces without clusters of homes, the ugliness of buildings and barns, the absence of life even on weekdays, and the unkept farms due to the owner's laziness, at least here in Ohio, are hard problems; to be overcome only by handwork on the negative and combination printing.

My own method is much like a painter's sketchbook.

Start a collection of sky negatives. Time of day, month and direction of light must be recorded. Make proof prints, 4x5 are large enough, both right and reverse side if possible, thus making it easier to compare the lighting of a sky with a landscape scene.

Another file holds a collection of animal negatives, ducks, geese, cows and sheep attractively grouped, also farmers plowing and haying, all moderately small figures. This file is rarely used but comes in handy when there is no other way out and life must be introduced into the print.

The third file contains the landscape compositions taken on various trips, to be studied at leisure and the best are finally worked up and combined as I shall endeavor to explain. I do not make any claim for originality in my method, there are others just as good, after all the finished result is the only thing that counts.

Please do not think it very complicated, inspiration and patience are most necessary, the technical details are easily worked by anyone able to make a good bromide print. I know every likely composition within two to three hundred miles and manage to see most of them once



*Print No. 2*

a year, some will compose better or have better lighting the next time or next year, but eventually with some luck they will be in my files. It is obvious when traveling a distance, that time of arrival, lighting and presence of life, is a matter of luck and the desired cloud forms will almost never be present.

Get the farmer's permission to photograph, promise him a print and keep that promise, and he will in most cases be glad to drive the cows and sheep where they will be most needed, after that one need only wait until they group satisfactorily.

Avoid a day of brassy light when suspended dust kills all shadows; a day of cloud shadows is the best, the everchanging lights make the landscape most interesting and no matter how far one has driven there is always a masterpiece just over the hill.

A high back lighting or late afternoon light with rich long shadows are most suitable.

I like a strong accent of trees to attract the eye and to add height and depth and there must be life, animals or humans. Be sure to keep them distant so that they may act as an accessory and not intrude by becoming portraits; geese and ducks in the foreground will not detract, anything larger is best kept further back; the placing of figures in landscapes seems to be rarely understood.

Let the sky cover two-thirds of the print to give a feeling of grandness.



*Print No. 3*

It is well to remember the limitations of your medium when composing the pictures, figures too far away are apt to look like a needle in a haystack. The illusion of distance can be given without trying to get a subject ten miles away on to the plate.

The landscape reproduced in the original, Print No. 1, is commonplace; the reeds are good, the animals, while not well grouped, are unobtrusive and add the necessary life, the tree and shed in back-lighting are beautiful and the apple tree balances nicely; the woods block the distant view and the general lighting is flat with no feeling of depth.

All possible blocking out and highlighting is done on the small original negative with retouching lead. A curved ditch or path is needed to enter the print to pull the eye up to the shed, an irregular deposit of lead will lighten this enough to give it indefinite form, a light accent like bare soil worked in by the gate and the touched in path beyond takes the eye into the distance. Never make path or ditch a straight or solid line.

The trees on the horizon were blocked out next, to give the feeling of going into the landscape and of a vista over the hill. Print No. 2 will show some of the work done on the original negative and also how much more interesting it commences to look with such few touches.

The sky negative, shown in Print No. 3, had to be reversed and only the portion marked was used and that kept high to keep light back and above the trees, this also carries the eye on up the reversed S curve



*"God Light Caresses the Smallest Hut"*

Walter P. Bruning

starting in the foreground. To combine the two into a positive, the landscape is projected first.

When the necessary retouching on the original negatives has been accomplished, the next step is the combination of the two negatives in a preliminary film positive from which the final enlarged negative will be printed by projection. As most of my readers will know, Carbon prints must be made by contact, and consequently the enlarged negative is a necessity.

The film positive from two negatives is printed as follows:

I place a card on the easel larger than the film positive to be made and outline the landscape on this; when this is cut in two along the outline of the landscape I have a mask for both sky and foreground shading when printing. First print the landscape shielding the sky with the card, the natural vibration of the hand is enough to blend the edges. I have not been successful with serrated masks. I then cut a curved card as shown by line running across Print No. 1. This is used to dodge in the foreground which is done by a second exposure. During this exposure move card decidedly to blend. Three to four pencil marks on film showing heights of horizon and trees will facilitate placing of sky, which in my enlarger can be done thru' the ruby filter. I give the sky three-

quarters the exposure shading the landscape portion and the balance with a straight card masking across the horizon to print sky thru' the trees for better blending. All darkening of accents is done on this positive, the wagon wheels under the tree and the foreground reeds were slightly built up with lead.

The projection of the final negative is a simple matter and this can be soft or snappy to suit ones printing process. For Carbon a snappy negative is best and I find a size near to 11x14 the best average size for grand landscapes. In this final negative all coarse retouching is smoothed over, I brightened the backs of the sheep, and to add a little vibrant light to sunny side of trees around the shed a very thin deposit or red water color was used.

The Velox color in paper form is easy to use to lighten a small dark spot or dark foreground. Use moist cotton to wet film base on either side until gelatine is soft, then apply a thin wash with a brush, immediately absorbing excess with cotton, repeat until sufficient, this blends well.

It all sounds complicated in the telling but is not really so and once started you will have thrill of your life in creating a fine print.

I waste one or two positives getting the combination right but as they need not be over 5x7 the cost is negligible. A vertical autofocus enlarger is of course the easiest to use but any make will do the trick. Expose positive fully, a trifle flat with deposits in the highlights, this gives all the original gradation in the final negative. Cut the enlarging light way down for easy manipulation, a slow light with Commercial Film gives latitude and better blending. My exposures run from three-quarters to two minutes in which time various cut outs can be used for control if necessary.

Never make a great many prints from a really fine subject, I restrict mine to fifteen to twenty-five numbered copies. It gives them greater value and helps raise the standard of the fine art of photography. There is no one more deserving of pity than the person that bought an etching at a good price only to find its one of five hundred. Someone had found the deceased artist's plates and the department stores started printing all over again.

Make your prints only in the most permanent process. Make only one if the expense is too great, but it is worth while to have made a beautiful print that perhaps some day will grace the walls of a Museum to be enjoyed by other generations. I find Carbon in Ivory Black on a cream or ivory base without comparison. My transfer papers are hand sized of the finest hand made stock. I like Shidzuoka Vellum particularly, a heavy silk fibre Vellum almost untearable and one that stands the water development well. This is very expensive, the Strathmore Mills make some very fine reasonably priced papers. In handsizing papers it is best to use the reasonably smooth surfaces as they are easier to coat; papers coated by hand never have shiny spots found on machine coated papers.

I use Knox table gelatine which is very inexpensive.

Formula: Soak 230 grains of gelatine in 7 ounces of water for 25



minutes; in double boiler raise nearly to boiling point; add *very slowly* drop by drop with constant stirring, 5 grains of Chrome Alum in 1 ounce of water. Keep hot and use at once.

I use a small sponge and rub a thin coat of gelatine into the paper, hang up to dry and repeat, two coats are plenty for a medium smooth paper. After last drying I place paper in 10% Chrome Alum solution for one minute, wash 20 minutes and hang up to dry; this hardener eliminates all danger of bubbles forming in the hot developing water.

Carbon sensitizer is standard:

Potassium Bichromate	.	.	.	.	.	2 ozs.
Citric Acid	.	.	.	.	.	1/2 oz.
Water	.	.	.	.	.	30 ozs.

Add strong ammonia until lemon yellow and solution has strong ammonia odor, add water to make 64 ounces. Time of immersion 2 1/2 minutes at about 65° F.

Camera Used, 3 1/4 x 4 1/4 Graflex, 7 1/4" Verito at F.16, exposure about 1/10 second, K 1 Filter, bright light about 11:00 A.M., Eastman Portrait Panchromatic Film, Eastman Pyro Tank formula, positive and final negative Eastman Commercial Film, Pyro tray developed, Carbon print on handsized Shidzuoka Vellum, Color Ivory Black.

I know the Bromoil fans will say: why all the bother?. I make a great many bromoils but find Ivory Black Carbon in softness, detail, and color most suitable for this type of landscape and it would be rather difficult to bromoil freehand the sky reproduced.

So come on you pictorialist with a longing to express yourself in beautiful landscapes. It is some work and there cannot be quantity production; I am happy to make one or two grand things every two years. Think of the old masters with whom time did not matter. Study their works in Art Galleries and in reproductions and listen to the music of Wagner, Beethoven, Schubert, Brahms and other masters so they may inspire you as they do me, to dream and to endeavor to do greater things in photography.

Beethoven's Pastoral Symphony gave me the inspiration for my "Pastoral" reproduced as a frontispiece in the January issue of this magazine.

# Construction Of The Shadowless Lamp

Fred P. Peel, A. R. P. S.

**B**ECAUSE of the many letters received from this country and abroad asking information regarding the details of construction of a shadowless lamp I feel sure that quite a few lamps were made following my first article in the December number of CAMERA CRAFT and that more would be made if complete information regarding construction were at hand. This article, therefore, follows as a belated sequel to that December story.

First let us build the tin 'Doughnut' and attach it to our camera stand. I suggest that you have a tinsmith do this for you because it will be impossible to either bend the tin into shape or roll the edges without the machines made especially for these operations.

## The Shell

Fig. 1 is a working drawing of the shell. However you will first have to establish the dimensions "X", "Y" and "Z". The dimension "X" will be the distance between centers of the two supporting horns (3" window screen corner angles, designated as supports, see fig. 2) which you have screwed to the front end of your camera stand. The distance on my lamp is 11". I find that a trifle wider table would work out better because it would then allow the stiffeners to come next to the inner circle, as I have shown in Fig. 1. The supporting stiffeners should be attached right next to and made a part of the stiffeners. (See section W W Fig. 1.)

The dimension "Y" will be determined by the largest camera you expect to use. The camera, when resting on the stand, should have its lens pointing directly thru the center of the inner circle of the shadowless lamp. When a small camera is used place it on blocking or a small platform so as to raise it to the centerline of the lamp. I do not suggest a smaller dimension for "Y" than  $7\frac{1}{2}$ ".

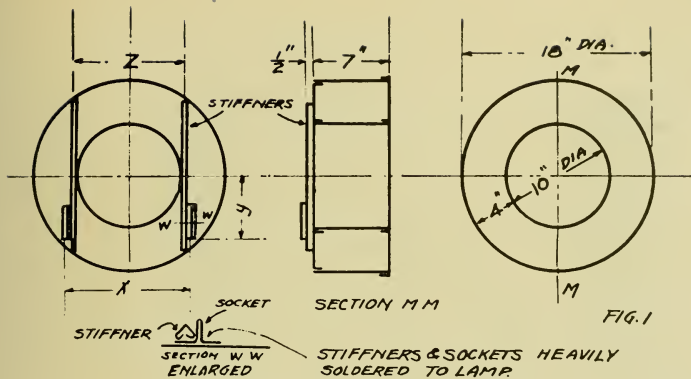


Fig. 1

The tin used in my lamp is known to the trade as Four Cross Charcoal Tin and is approximately 27 gauge. Do not use a lighter weight tin than this. One or two gauges heavier will be still better.

Be sure to test the shell on the front of your stand as soon as it is delivered to see that the supporting sockets are correctly spaced and fit the horns without binding.

## Lamp Sockets

You are now ready to install lamp sockets and switches and wire the lamp. Place twelve standard porcelain lamp sockets 30 degrees apart around the centerline of the lamp ring as shown in Fig. 3 and secure these to the base of the lamp with  $\frac{3}{16}$ " stove bolts. Place the heads of the bolts on the outside of the lamp and the nuts next to the porcelain.

## Feed Wires

Next bore and ream two holes in the bottom of the outer wall of the lamp about 3" apart and 1" from the back. If you make these two holes  $\frac{11}{16}$ " they will accommodate standard fixture insulating bushings. However, I suggest that you procure your insulators before you ream the holes. See fig. 4 for an illustration of the type I use.

## Switches

The method of attaching the switches will be determined by the type of switch you are able to procure. I suggest the auto dash toggle switch procurable at all auto accessory shops or a dome toggle switch procurable at an electrical supply house. Either type should cost no more than 25c

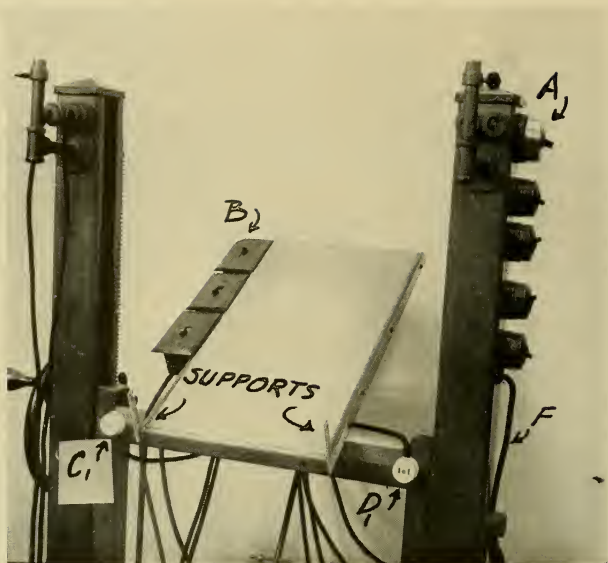


Fig. 2

each. The dome switch is the easier to apply as it requires but one hole in the shell while the auto switch requires not only a hole for the body of the switch but two screw holes as well. The dome switch is shown in Fig. 4A while the auto type is shown on my lamp in Fig. 3.

Space these switches about an inch apart along the top of the lamp and as near to the back edge as possible. It is better to have the two center switches a little farther apart than the rest. That will make two banks of six switches each.

## Wiring

Run four-foot extension leads thru the two insulating bushings in the bottom of the lamp and then wire switches and sockets in accordance with fig. 5. All connections not made with a binding screw should be soldered. Fig. 3 shows the lamp with wiring completed.

## Ring Reflector

Secure a piece of heavy cardboard at least  $\frac{1}{8}$ " thick and 18" square and place the lamp, face down, on this. Now trace the inside and outside circles of the lamp on the board. Making the necessary allowance for

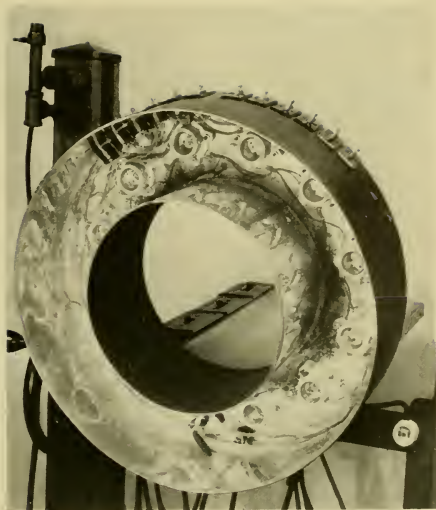


Fig. 3

thickness of the tin, cut out this large ring and fit it nicely into the lamp. Two small screw eyes placed on opposite sides of the ring will facilitate the handling of the ring while fitting.

When you have obtained a nice "push fit", as it is called, smear the tops of the sockets with stamping ink and press the ring down hard upon them. This will make an impression on the back of the ring of all twelve of the sockets. Clamp the ring down to a piece of wood and with an expansive bit bore the twelve holes as indicated by the impressions. Be sure to make a test hole in a scrap of the board to see that the hole is large enough to slip over the socket with a small amount of clearance. Test the ring to see that it goes over all sockets and into position against the base of the sockets. Three very small sheet metal screws placed thru the outer wall and just in front of this ring or washer will prevent it ever falling forward against the flood bulbs.

### Reflector Surface

Remove the ring and give it a coat of shellac and allow to dry. Next give it another coat of shellac and before it dries cover the front surface with tinfoil that has been first slightly crumpled and then straightened out. Cement the tinfoil to the edges and holes of the ring but *do not* allow any of the foil to extend to the back surface as it might cause a short circuit should it touch the screws on the sockets.





Fig. 4



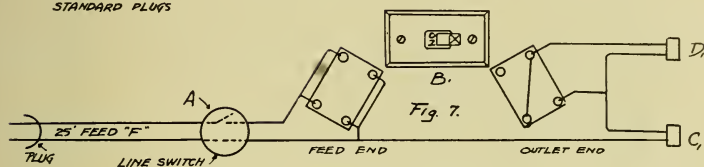
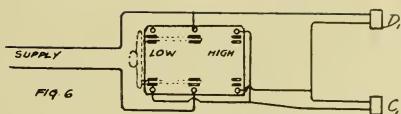
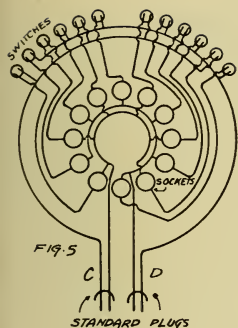
Fig. 4a

Replace the reflector ring and secure it with the three screws. Paint the surface of the lamp and screw in the flood bulbs and that much of the outfit is ready.

## Control Switches

The camera stand wiring is shown in Fig. 6, that is if you prefer the inexpensive, open type knife switch. This arrangement is dangerous because of lack of insulation on switch and terminals. It is only suggested as experimental equipment.

The safer and approved type is shown in Fig. 2 and the diagram in Fig. 7. So that you may identify the several parts of the diagram I have used the same lettering in the photographs where these switches appear. The line switch "A" may be any type of one or two pole 10 Amp. switch. The "B" switch, however, is the one that will cost you money unless you are lucky and can pick up one from a radio junk man. These switches are known as Double-Pole Double Throw, Flush, Snap Switches. Some call them "eight point switches". The radio man will recognize



Figs. 5, 6, and 7

them best if you ask for an old radio charging switch. You will note that there are four terminals on each end of the switch. Throw the toggle to the "ON" position. The end towards which the toggle is pointing you will call the "outlet end" the other end you will call the "feed end". You will observe that only seven of the eight terminals are used. Follow the diagram for the wiring. The lights will burn "high" when the switch indicator shows "ON" and will burn low when the switch indicator shows "OFF".

With these switches installed at a convenient point on the camera stand and the 25' extension cord "F" plugged into the baseboard house circuit the system is alive up to the lamp terminals "C" and "D". Plug these into the receptacles "C", and "D", (Fig. 2.) and your shadowless outfit is ready to work. For the simple operating technique see the December CAMERA CRAFT.

NOTE:—I was asked to include in this article a more detailed description of my operating technique. If I may judge others by myself I do not believe that the serious worker wants anything, beyond the details necessary to build the lamp. What fun is there to have everything planned out for you? Play with your lamp; experiment with different subjects and backgrounds and, who knows, you may hit upon a new angle and produce a new result that I have never thought of in my many experiments.

# Our Monthly Competition

## Scoring for Club Trophy Cups

The following individuals won points for their clubs: M. K. Curtis, for the California Camera Club; Ray Kuhn, for the Cleveland Y.M.C.A. Camera Club; Dr. Max Thorek, F.R.P.S., for the Fort Dearborn Camera Club; and Christine B. Fletcher, D. E. Jack, Stanley R. Jordan, and Win. E. Wing, for the Photographic Society of San Francisco. Mr. H. F. Kells' award cannot be credited to the Camera Club of Ottawa since he has already won the maximum number of points permitted an individual under our rules, as explained in this department last month.

## Contributing Clubs

California Camera Club  
Camera Club of Ottawa  
Cleveland Y.M.C.A. Camera Club  
Fort Dearborn Camera Club  
Fresno Camera Club  
Golden Gate Leica Club  
Japanese Camera Club  
Photographic Society of Bangalore

Photographic Society of San Francisco  
Pictorial Photographers of America  
Richmond Camera Club  
San Jose Camera Club  
Schenectady Photographic Society  
Telephone Camera Club of Manhattan  
Vancouver Camera Club

## Standing of Clubs

### Large Clubs Advanced Class

Camera Club of Ottawa .....	15
Pictorial Photographers of America ....	13
Fort Dearborn Camera Club .....	13
California Camera Club .....	6
Telephone C.C. of Manhattan .....	4
Photographic Society of S. F. ....	2
Utica Camera Club .....	1

### Small Clubs Advanced Class

Japanese Camera Club .....	14
----------------------------	----

### Large Clubs Amateur Class

Photographic Society of S.F. ....	30
Schenectady Photographic Society ....	15
California Camera Club .....	7
Golden Gate Leica Club .....	3

### Small Clubs Amateur Class

Cleveland Y.M.C.A. Camera Club .....	3
San Jose Camera Club .....	2

## Discussion

■ Mr. H. F. Kells again offers a finely worked out conception in "Salome (Remorse)". The figure is beautifully photographed and the artist has been unusually successful in portraying the gentle, religious personality of John the Baptist, in the face shown as the secondary image. The fine qualities of character that are so vividly shown in that face give a strong graphic presentation of the reasons for Salome's remorse.

By a comparison of this picture with Mr. Kells "Soul of the Dance", which appeared in our May competition, we may learn how extremely delicate the adjustment between the primary and secondary images must be. In "Soul of the Dance" there is no trace of competition between the primary and secondary images, they supplement each other to perfection. In the present print we feel that the secondary image attracts just a shade more than its proper share of attention. There seems to be three reasons for this. First: surely not a fault, is the fact that the secondary image is so finely done that it has a strong pictorial appeal of its own. Second: the area covered by the secondary image alone, seems large in relation to the other items in the picture space. Third: the fact that the highest lights appear adjacent to the secondary image giving it prominence by reason of contrast, and also the highlight area at the left sets up the line that runs from the lower left to the secondary image. We should not overlook the fact that this line serves a useful purpose in pointing to the connection between the decapitated head of John the Baptist and the spiritual conception of the man as presented in the secondary image, but it is nevertheless a factor contributing prominence to that image, which should be kept subordinate.

Two solutions present themselves. We might simply lower the secondary image until the head of Salome cuts high on the cheek, trimming a corresponding amount from the top of the print, and lower the key of the light area on the left slightly. This would subordinate the secondary image as desired but has the disadvantage of



"Salome (Remorse)"

H. F. Kells

First Award—Advanced Class

blocking off the mouth of the secondary image and thus robbing it of some of its expressive qualities. On the other hand we might print the secondary image in reverse, in which case it would occupy the upper left portion of the picture. If this were done the light area now on the left would be on the right, behind the figure of Salome, and would strengthen the figure by way of contrast. The disadvantage of this solution lies in the possibility that with this arrangement the connection between the severed head and the secondary image might not be so clearly shown. One could hardly be sure of the best solution without making experimental prints.

Data: Negatives on E.K. Portrait Pan. in M.Q. Borax; foreground figure: 14" lens; 1/10 sec. at F:6.3; one 500 W lamp in reflector. Background negative: 6" lens 1/10 sec. at F:6.3; two 500 W lamps in reflectors. Composite print on E.K. Opal Q matt, in E.K. D-73, with extra bromide; toned in gold bath.

Second Award  
Advanced Class



**"Off The Highway"**  
Norman Rhoads Garrett, A.R.P.S.

striving for perfection they should be removed.

Data:  $2\frac{1}{4}$ "x $3\frac{3}{4}$ " Zeiss Ikon Ideal A; Tessar F:4.5 lens; 1/50 sec. at F:8, with K 2 filter on E.K. Verichrome film pack, in A.B.C. pyro tank; print on Defender Velour Black White Plat Matt.

Third Award  
Advanced Class

■ We feel that Dr. Max Thorek's "Chemistry" contains a splendid picture idea, that has been worked out with care and a fine sensitivity for graphic values. There is just enough confusion of apparatus to suggest the complicated activities of this science, and the human element has been cleverly subordinated so that there is no chance of looking upon the picture as a portrait. Glassware seems to object most strenuously to being photographed in soft focus, and registers this objection by losing much of its substance under such conditions. The bad effects of too much diffusion are especially evident in the tube that cuts diagonally across the head. Sharp focus would improve this picture.

Data: 8x10" studio camera; 18" Verito;  $\frac{1}{2}$  sec. (aperture not given) by Hallordson light; Agfa plenachrome film in Glycin; print on Criterion Mezzotone in M.Q. from paper negative on Agfa Brovira.



**"Chemistry"**  
Dr. Max Thorek, F.R.P.S.



**Fourth Award**  
**Advanced Class**

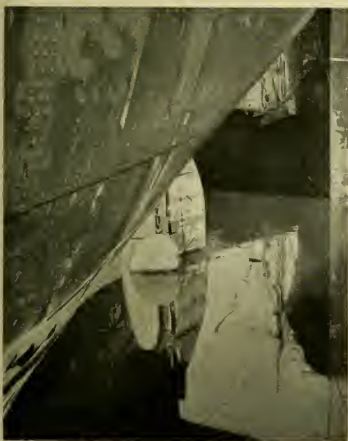
■ Mrs. Christine B. Fletcher's "Fruit of the Vine" has a very fine photographic quality, and is redolent of the peculiar charm that is present in all of this workers still life studies. Learn from this print that it is not necessary to sacrifice photographic quality in order to obtain the advantages of control that are inherent in the paper negative process.

As it stands the picture falls off in interest and value at the left and consequently holds together better if trimmed from the left in to the point where the larger group of grapes begins to spill over the basket.

Data: 4x5" Graflex; 8" Bausch and Lomb Tessar F:4.5; 20 secs. at F:11, by a combination of daylight and mazda light, on Defender X.F. Pan., in M.Q. Borax; print on Defender Velour Black Rough, from paper negative on Dassonville Opaline, in M.Q.



**"Fruit of the Vine"**  
**Christine B. Fletcher**



**M. K. Curtis**

**Fifth Award**  
**Advanced Class**

■ Mr. M. K. Curtis' print has no title, but it is plain that he was intrigued by the interesting pattern formed by the reflections in the water. We do not feel that the picture is entirely successful inasmuch as it is very hard to see and requires a considerable study before its interesting features become apparent. The hull takes up rather a large part of the picture space, inasmuch as it serves chiefly as a frame. It would probably help to direct our attention to what should really be seen in the print if the hull were more deeply printed so as to subdue the detail in this area.

Data: 2¼x2¼" Rolleiflex; Agfa Plenachrome film in M.Q. Borax; Defender Velour Black in M.Q.



"Portrait"

Stanley R. Jordan

First Award—Amateur Class

■ This is the second first award won by Mr. Jordan, whereupon he is notified of his promotion to the Advanced Class. We may notice from Mr. Jordan's "Portrait" how important, little deft touches may be in the making of pictures. It is the slight tilt of the head combined with the cleverly arranged lines of the hat that gives this picture the element of piquancy that is so charming. While the expression of the face conforms to a certain extent we feel that a bit more evident quirk to the mouth and a slightly more challenging, or tantalizing expression in the eyes would be more in keeping with the pose of the head and the sauciness of the hat. It is regrettable that all four corners of the print are in a very high key, in fact constitute the highest lights in the print. Since the eye naturally is attracted to the highest lights this fact does not help the coherence of the picture. Slight dodging in of the corners therefore seems advisable.

Data: 4x5" camera; 10" Carl Zeiss lens; Mazda Lamps; Portrait Pan., in Pyro Metol; E.K. Opal print in Amidol.

## Second Award

### Amateur Class

■ Ralph H. Anderson is a gentleman who has jumped to the front in these competitions very rapidly. His "Man of Many Summers" is an outdoor portrait of first rate quality. The only defect in the picture lies in the fact that the head and body together constitute an almost perfect rectangle, with the result that the remaining picture space is not broken up and the body does not form a strongly supporting base for the head. If the right arm had been brought up and forward just enough to carry the outline of the body slightly to the left, it would help. We do not mean by this that the right arm should show space between itself and the body.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$ " R.B. Graflex; 6" Bausch & Lomb; 1/35 sec. at F:5.6 with K 1 filter, on Defender X.F. Pan., in Pyro; E. K. Portrait Bromide E, redeveloped for sepia tone in barium sulphide.



"Man of Many Summers"

Ralph H. Anderson

## Third Award

### Amateur Class



"Indian Summer"

Ray Kuhn

■ "Indian Summer" by Ray Kuhn, has a lovely decorative quality and the spacing and grouping of the trees leaves nothing to be desired. As the picture stands the highest lights in the landscape appear in the water at the right of the print, so there is a slight tendency for the eye to leave the picture at this point rather than travel into the print as is desired. Slight trimming at the right would help in this respect and we would also lightly touch up the high-lights on the bank just beyond the base of the group of trees in the left center of the picture. This will help to carry the eye into the print.

Data: Voigtlander Avus; F:4.5 Skopar lens; 1/10 sec. at F:11 using pictorial diffusing disc and 2X yellow filter, 2 P.M. in September; Agfa Plenachrome film pack; E.K. P.M.C. No. 7 medium in E.K. D-72.



"Stairway"

Wm. E. Wing

■ In "The Stairway" by William E. Wing we find an example of the type of objective photography advocated by the "pure" school. Technically it is well done, and there is little to criticize from the standpoint of composition. The main masses of light and shade are well balanced, the stairway supplies a leading line that give coherence, and the sunlit doorway at the head of the stairs provides a center of interest that is properly placed. The picture will probably satisfy those who agree with the tenets of "pure" photography, for those who don't the picture will, no doubt, lack significance.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$ " Korona View;  $9\frac{1}{2}$ " Dagor;  $\frac{1}{4}$  sec. at F:16, on Defender X.F. Pan.; Veltura BL, in Amidol.

## Fifth Award

## Amateur Class

■ The charm of Mr. D. E. Jack's picture, which has no title, lies in the naturalness of the pose and the obvious interest of the children in the book. The circular composition is well put together and the eye travels easily from one to another of the three objects of interest. We could wish for a bit more room above the boy's head, and some dodging in of the corners of the print would eliminate their present self-assertion.

Data: Leica; 50 m.m. Elmar;  $1/30$  sec. at F:6.3 on DuPont Superior, in P-phenelene-diamine-Glycin (Purdons Formula); Vitava W in D-72.



D. E. Jack

# Cinema Section

Edited by  
William A. Palmer

## Title Tips

Titling of cine films is a subject that is very often discussed in departments such as this one, and it seems unnecessary to continue to illuminate the advantages of adding titles to one's films. Neither does it seem necessary to deal at length with the methods of making titles, since the amateur has, among other methods, the two very simple alternates of having his titles made by one of the very excellent commercial title services, or of making titles with his own camera with the aid of one of the neat little titlers now on the market.

However, letters from cine workers indicate that there are several difficulties of technique encountered in this title business which could well stand additional exposition. The three most prevalent questions arising from title work are:

1. How can I get titles centered accurately?
2. What is a good method of making title cards with white letters against a dark background?
3. How can I get good contrast when making "direct" titles on positive film?

The following discussion, it is hoped, will in a measure answer these questions:

### Title Centering

In lining up the cine camera for title shots, the regular finder is, of course, useless, since the point of view of the finder is an inch or so removed from that of the lens. The finder's field is adjusted to coincide with that of the lens when the subject is fifteen or twenty feet away and usually has a calibration to cor-

rect the field for distances from three to five feet, but at a distance of one to two feet the finder becomes very inaccurate.

Certain few cameras, having means of viewing the image of the lens on the film or on a ground glass screen which is in such a position that the field of the lens is accurately represented, are ideal for title work. However, most of us are not fortunate enough to own one of these professional-like cameras and so we might proceed as follows:

The camera is mounted on a stand as shown in figure 1 in such a way that it may be removed and replaced in exactly the same position. This may be accomplished by a small block of wood or cleat along side of which the camera is placed when it is fastened on the stand by the tripod screw. The block will prevent the camera's rotation and force it to keep "eyes front" at all times. The title board or easel is fastened to the board which makes the base of the title stand. The distance from the camera to the title board depends upon the size of title card to be used. (Here the finder proves useful to determine the approximate size of the field at a certain distance, but will not show the proper position of that field.)

It will be seen that with this arrangement, we have a camera set-up that may be duplicated at any time. The camera can be focussed by one of several means: accurate measurement with a tape line, the use of a critical focuser if the camera is so equipped, or the use of a portrait attachment or supplementary lens. Then comes the determination of the ex-



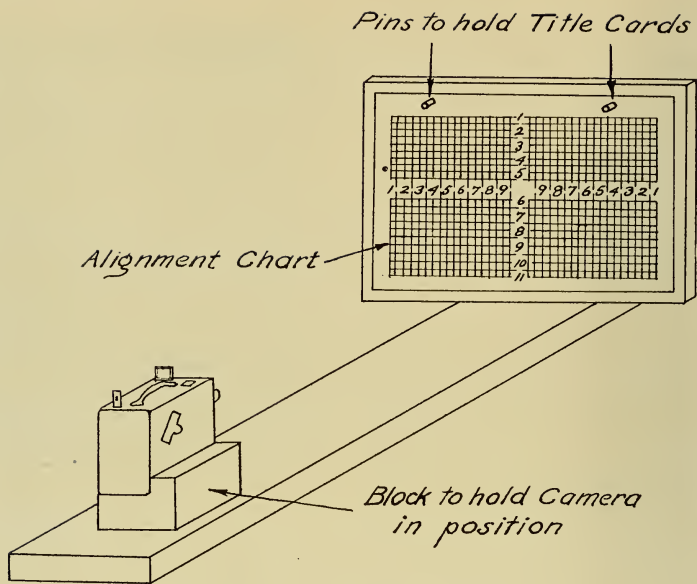


Fig. 1

act field of the lens. This need be done only once, for after the limits of the camera's view are marked on the title board, the camera can be removed and replaced to include the same view, any number of times.

An alignment chart is made as shown in figure 1. This chart consists of a series of numbered lines running both vertically and horizontally, the numbers being placed along the major and minor axes of the rectangular area of the title board. The chart is affixed to the title board through two pins (shown A, Fig. 1) much as the method of registering the drawings for animated cartoons. These pins make a ready means of holding cards, charts, etc., at a definite position through holes punched in them to fit the pins.

The camera is then loaded with a few feet of positive film which is exposed, making a picture of the alignment chart. The film is developed and by an inspection of the image the exact limits of the lens' field can be seen. These limits can

then be marked on the alignment chart. If the chart is removed from the stand and placed over a piece of black cardboard and an opening is cut through the two sheets following the marked outline of the picture field, also duplicating the punched holes for the guide pins, there will then be secured a mask which, when slipped on the title board over the guide pins, will form a "proscenium" behind which the title cards can be slipped, the edges of the mask opening being the edges of the picture field.

This sort of "trial" method has a great deal to recommend it as has the idea of a permanent title stand of the type illustrated here. Once the alignment has been accomplished the stand may be kept in readiness, to do a title job with the minimum of preparation. The stand might be mounted conveniently in a vertical form, camera pointing downward, in the corner of a closet.

#### White Letters on a Dark Background

The making of white letters on a dark



Fig. 2

or black card is a rather difficult job with ordinary methods. White poster paint applied with a brush usually is the medium used, but a brush is difficult to handle and the white often doesn't cover well over the dark background. Much easier to handle is india ink in a lettering pen on white paper, but of course the values must be just the reverse for the title taken on the ordinary cine film. This reversal of values can be done very successfully by photographic means to obtain a title card suitable for the regular reversal film. The procedure is as follows:

The title is printed on a thin white bond paper by one of the usual methods: Hand lettering with india ink and pen, type-writing, or printing from type. The title is then used as a negative and printed photographically onto a piece of ordinary contact printing paper just as though it were a still camera negative. The finished print is used in the title apparatus just as the ordinary cards.

This method of producing title cards becomes very flexible since it can be used to obtain a great variety of background effects. Figure 2 shows a series of cards made by photographic printing from the

"negative" on white paper which is shown on the upper left. All that is necessary to add an art background to the title is an ordinary still negative of the background desired. The white paper bearing the lettering and the background negative are placed together and both printed simultaneously onto the photographic paper. The background negative may be of a "texture" or of an actual scene. In figure 2 the title is shown printed plain, giving a black background with white letters—printed with a "texture" negative, in this case the bark of a tree—and printed with a scene as a background.

#### Quality in Direct Titles

The so called direct titles, taken on positive film and merely developed into a negative image. (Not reversed as the usual cine film is) are very inexpensive and therefore have become exceedingly popular. However, it is usually necessary for the amateur to develop his own film and often the proper black and white contrast is lacking.

The achievement of good contrast on direct titles is controlled by two factors: The type of illumination used to photograph the title and the development of

the film. The first factor is one that is not usually recognized nor readily understood, but it is nevertheless a fact that the color of the light used (when photographing with positive film) will have a good deal to do with the contrast. Bluish light will give a contrastier exposure than will reddish light. Perhaps the most ideal light source for titles is the Cooper-Hewitt mercury vapor lamp which has a very blue green light, with no rays from the red end of the spectrum. The white flame arc or the photo blue mazda lamps are also very good, being preferable to the ordinary clear incandescent lamp.

For the amateur, the photoflood lamp is the ideal light source and when used in the ordinary manner is considerably better than a regular lamp, since it is richer in radiation in the blue end of the spectrum. The photoflood can be very much improved for title illumination by the use of a blue color filter or screen somewhere in the system. This can be done by placing screens of blue theatrical gelatin in front of the lamps, flooding the title card with blue light, or by using a blue filter such as the Wratten "C" over the lens of the camera.

The title card should be lighted by at least two sources placed at either side of the title board. The lights should be in a position such that a line drawn from the source to the center of the title card will make an angle of about thirty degrees with the plane of the title card. If the lamps are placed too near the camera, there is danger of getting reflections from any glossy points the card may have.

### Development of the Film

The type of developer used with the positive film is the most important single factor in obtaining good contrast in titles; the technique of the development is a close second. Some form of contrast developer should be used even though the positive film is itself rather contrasty as compared with negative stock. The Cautic soda-Hydroquinone developer is unsurpassed as far as its contrast results are concerned, but it is very short lived and therefore not very economical to use

for occasional small title lengths. A much more satisfactory formula is the following which has very excellent keeping qualities, lasting a month or more in a closed tank, and will give entirely satisfactory results. It is known as the D-19 formula for X-ray work:

Water (125° F)  $\frac{3}{4}$  gallon.

Elon 146 Grains.

Sodium Sulphite, 14 Ounces.

Hydroquinone, 1 Ounce, 146 Grains.

Sodium Carbonate, 7 Ounces, 28 Grains.

Potassium Bromide, 360 Grains.

Water to make 1 Gallon.

Allow the solution to cool to 70° F. before using.

This developer can be purchased ready to mix from the Eastman Kodak Company. It is known as the X-ray Developing Powders No. 3.

The exposure of the positive film should be correct and the development full. The exposure is best determined from a test made by exposing a few frames at each stop or opening of the lens and then developing the strip under conditions that are noted and can be reproduced. The best contrasts will be secure when the developer is at 70°F., but it should not be used at a higher temperature.

### Questions and Answers

**Question:** Can fade-outs be made satisfactorily by closing the regular iris diaphragm of the lens?

**Answer:** Ordinarily this is difficult to do with complete satisfaction because the ordinary lens will not stop down to an opening smaller than f. 16. The result, when a fade is attempted by closing down the iris from ordinary stops of f 5.6 to f 4.5, is that the scene fails to fade out completely. If filters are used over the lens or the light is weak enough to permit the scene to be photographed with the lens wide open, very satisfactory fades can be made when the lens is then closed down to f. 16.

# Correspondence

## Competition Comment

Dear Mr. Young:

..... Usually I quite agree with your criticisms of the competition pictures, though in some cases the small reproductions scarcely show points mentioned. Likewise the reproductions occasionally let one wonder at the order of the selections of the judges. As to the ship picture on Page 237, I cannot agree that this would be improved by trimming as you suggest—to me that appears to throw the whole study out of balance. I do think that trimming off about one-third of the dark between the left and the waterline of the prow, and about one-half of the distance from the right edge to where the cable enters the water, might be an improvement, especially if the lights on the left end of the scroll, and in the upper left hand corner were subdued.

Trimming "California Hills" as you suggest certainly would strengthen the picture. As it stands, "Bring Rain" is one of the very few of Dr. Thorek's pictures which I rather like. In the small reproduction, the face does not have much attraction, and the shoulder is a better center of interest for the whole picture. The face is too far to the side to be a good pictorial center. Possibly I might agree with you if viewing the original print. I have one more objection to the "Skier"—pictorially it seems incredible that he can be proceeding UP HILL at such speed, though of course in fact the thing might be done.

Sincerely, and with best wishes,

A. G. MILLER.

**The new lay-out of the Competition Dept. will result in much better reproduction. Others are urged to comment upon our competition prints.—Ed.**

## Pure Photography

Dear Mr. Young:

There is some misunderstanding among the photographic cognoscente as to the

prime motives of Group F 64 and associated workers as expressed by the literary and oracular spokesmen thereof.

We are accused of intolerance, of ruthlessness in condemning all photographers except those of unquestioned photographic purity, of implying actual insincerity to all Pictorialists, and generally raising the very devil professionally, personally, and artistically.

As possibly the chief offender in respect to articles, talks, etc., I feel that some explanation is required in order to clear the name of the Group, and my name as well, of these perfectly understandable charges.

In the first place, we do not consider all Pictorialists insincere. A few Pictorialists, as well as a few "pure" photographers, are not sincere—in all forms of human activity there are a few "false ones"—those who grasp on the achievements of creative souls and mutilate and perhaps destroy. But most of us—purists and pictorialists—are absolutely sincere in what we are doing. At no time has the Group F 64 implied insincerity to workers in another field.

What we are fighting for is the re-establishment of the pure photographic medium; our zeal has often made us beligerent and undoubtedly irritated those who evidence a point-of-view distinctly different from ours. We do not believe that the Pictorialist is defining the medium—but we do not imply that he is an aesthetic felon.

We have perhaps done more talking and writing than is good for us; I, for one, feel that the best way to present our ideas is through our work. We do not imply that our contribution is the Alpha and the Omega of Photography, but we do feel that logic is on our side; the Purist may act chiefly as a catalyst in the development of art—to precipitate and define the essential elements on which are built the phases of intense expression.

I take this opportunity to express to all photographers of different persuasion that we are not on the war-path; that we are favorable to any sincere expression; that we, of course, support our own beliefs to the limit, but do not wish to force others to agree with us, and that we are always willing to discuss our work with anyone who is genuinely interested in Photography and to support any work that appears vital and sincere, and related to the essential honesty of the medium.

Sincerely yours,  
ANSEL ADAMS.

### Licensing Ordinances

Dear Sir:

I have been interested in photography nearly thirteen years, as amateur, newspaper staff man, darkroom worker in both portrait and amateur finishing shops, and more recently through taking up part-time commercial and portrait work as a side line to other occupations, on my own. At present, for lack of time and of darkroom space, I am taking pictures but having my finishing done by professionals.

Mr. H. Rossiter Snyder's letter in the correspondence column of your May issue strikes right at the heart of a problem in which I am vitally interested. I am attaching a newspaper copy of an amendment recently added to our general occupation tax ordinance by the city council here, at the urgent request of a group of established photographers, mostly portrait men. I was city hall reporter for five years on the paper publishing the notice, and I believe I can throw valuable light on the subject.

### Amended Ordinance

"Section 109. Photographers, for each studio or place of business maintained in the City, per year, \$25.00.

Transient photographers, or any representative, agent or solicitor for any transient photographer or for any photographer who does not maintain a studio or place of business in the City of St. Joseph, for each representative, solicitor, agent or employee thereof, per day, \$5.00.

Any person, firm or corporation applying for a transient photographer's license hereunder shall deposit with the city clerk at the time of the application therefor a sum of \$100.00 in cash, which said moneys shall be applied to the payment of the transient photographer's license fee herein provided for, and any unused balance of said deposit shall be returned upon said applicant quitting business in the City of St. Joseph.

### Paragraph 4

Any person, firm or corporation who shall hereafter commence the business of a photographer in the City of St. Joseph shall, before a license shall be issued therefor, give a bond unto the City of St. Joseph with good

and sufficient sureties to be approved by the city clerk in the penal sum of \$500.00, said bond to be conditioned for the payment of the transient photographer's license fee herein provided for in the event that said person, firm or corporation shall fail to become engaged in the business of photographer in the City of St. Joseph and maintain a studio or place of business therein in good faith for a period of at least one year."

I believe Mr. Snyder is in error regarding the constitutionality of occupation taxes in general, at least so far as concerns established business organizations, under the Missouri constitution. Our tax here has long been in effect, has been fought bitterly at times by merchants or tradesmen who held that it was inequitable, and, I believe, has stood several legal tests. However, I am not aware that it ever has been carried to a federal court.

The attached amendment represented the reaction of established studios here to those mentioned as "transient photographers." For several years fly-by-night establishments have come in here at the beginning of Christmas rush seasons, sent out beavies of solicitors, and obtained large shares of the Christmas portrait sittings, doing poor and perishable work at cut prices, then bundled up their light apparatus and left town. I am reliably informed that one such group, here about six weeks last winter, left the town with nearly \$5,000 profit, having paid only the established studio tax of \$25. It stood unchanged in the amendment.

On its first reading I was much concerned over how the amendment, which I understand was virtually copied from an ordinance adopted somewhere else, would affect my work. I went over the bill in detail with the chief city counselor, an old friend, who had not previously seen the measure as drawn up by his assistant. He openly expressed doubt as to its legality, especially the vague and ambiguous paragraph relating to posting of bonds by anyone establishing shops or studios after the ordinance should take effect. He also said it might be necessary to obtain a court definition of a photographer, making clear just who or what should be affected by the bill, before the legality of the ordinance could be determined, in case anyone should care to contest it.

The counselor added, too, that under my present plan I was wholly in the clear,



but he was uncertain whether the mere setting up of a darkroom in my home, without my opening a place of business open to the public, would make me subject to the tax. He was inclined to believe it would not.

Considerably relieved, I went on about my business, but, more because of hope of avoiding future trouble than because of any personal concern, I went before the council at its caucus session the night the measure was adopted. The counselor and I summarized our previous discussion. He re-stated his earlier doubts, and again assured me that, as a legal resident, voter and personal property tax payer, I need not worry. I urged that the bill be made more clear, and its legality definitely established, before it should be adopted. However, the council, largely on the assurance that it was aimed only at professionals intending to come here and "milk the town" during rush seasons, passed the ordinance. That view, of course, corresponds closely with the opinion offered in the editorial note following Mr. Snyder's letter.

I might add this. Mr. John S. Boyer, the counselor, told me he felt sure only a "signed bond," the signatures of two sureties for example, would be required under what I have marked on the clipping as paragraph 4. He expressed doubt whether the city would try to collect the bond in case an established resident should open a place of business with evident bona fide intent of conducting it permanently, then should fail in business or move away, not becoming a transient operator here or doing any further commercialized photographic work in St. Joseph. In fact, he felt certain it would not.

Regarding general enforcement of the occupation tax on photographers here: The established professionals have been accustomed to pay up on time, unless business was too poor. I am told that, occasionally, licensed professionals have demanded that struggling free lance workers here, having no business places except home basement darkrooms, be made to pay the tax also. So far as I am able

to learn, the city license department has soothed the jealousy of the established men by issuing warnings to the free lance workers—and has let it go at that. I am not aware that anyone without a studio or commercial shop has been compelled to pay, under either the old law or the new.

I have not studied law nor been a mayor like Mr. Snyder—whose opinions, by the way, I respect thoroughly. But I have covered court house and city hall newspaper runs most of the time for nearly eight years. My own view, if worth anything, is that the occupation tax plan will stand up in court, at least under our state constitution here, IF APPLIED STRICTLY TO THE OPERATOR OF AN ESTABLISHED PLACE OF BUSINESS OPEN TO THE PUBLIC. I doubt its legality if it is extended any further.

I think the ordinance sought and obtained here was an effort at well justified self-defense rather than at "getting even", but may prove ineffective if there ever is a real fight against it. Personally, I, like Mr. Snyder, would post the bond, pay the tax and forget it, if I ever should have any desire and enough cash and ability to open a studio here. I don't expect that to happen.

I am in hearty accord with his view that any efforts by the licensed professional to crowd out the free lance worker are unjust, illegal, and, if they succeed in spite of these facts, likely to hurt the perpetrators more than the intended victims. Also, Mr. Snyder holds that it is illegal in general to charge any man for plying his profession. The principle upheld here as I understand it is that it is legal to require a special tax from an established owner of a business to finance at least two of the city government's duties; first, to enforce other laws relating to him, including inspections of his place and the requirement for proper and orderly conduct of his business; second, to protect him against dangers ranging from burglary to "unfair competition." It seems to me this should be legal, as I said, if applied only to the owner of an established

business. Whether the resident free lance worker, even though he sells his pictures locally, is "unfair competition" or is the main means of the license holder for making a living, as Mr. Snyder suggests, is a rather different matter.

My answer to that question came not long ago. I use mostly a camera requiring plates or films cut in centimeter sizes. Although I don't think it was a local dealer's fault principally, I found I could not get satisfactory deliveries. I began ordering from New York and Chicago, and got what I needed when I needed it.

One thing more. Mr. Snyder speaks of discrimination. Our city counselor also mentioned it—as his main reason for doubting the legality of our new ordinance. He cited mainly the discrimination established, by what I have designated as paragraph 4, between photographers already licensed and any who may want to be licensed from now on. I doubt whether those seeking the amendment intended to bar competition or scare it away. But I think that if anyone did so intend, he may accidentally have left the way open for his own throat to be cut instead of the other fellow's.

I regret that this letter has become so bulky, and, perhaps, tedious. But I had a good deal to say, without time to arrange it compactly. Any of what I have written is open to publication, although of course I know you cannot well spare

space for more than a summary. I would appreciate having the main points passed along to both Mr. Snyder and Mr. Insinger, also hearing personally from them both, and from **Camera Craft**, on the subject.

Cordially,

F. C. WARD,  
2728 Lafayette St.,  
St. Joseph, Mo.

**Communications from other Free-Lance Journalists who have had experience in this matter will be welcomed.—Ed.**

Dear Mr. Young:

. . . . Now, why the last two bucks to **Camera Craft**? If that were literal, of course, it wouldn't be so. But it doesn't miss it far, at that. First, I'm a dyed-in-the-wool picture hound. Second, I'm a huge admirer of William Mortensen's camera work. Third, his essay on creative pictorialism makes me instantly equally enthusiastic about his ideology and his manner of giving it expression. Fourth, I simply can not afford to miss the other four articles that are promised. And fifth, I've finally decided that **Camera Craft** is the very best of photographic journals, and therefore my first subscription on a yearly basis to any such magazine—though I've read them all for years—goes to you.

Pardon the discursiveness that has no proper place in modern business transactions.—H.W.H.

# Photographic Digest

**Dr. H. D'Arcy Power, F. R. P. S.**

## Improved Bromides by Improved Methods

Mr. A. Knapp, F.R.P.S. of step development fame, steps into the field that has been so much threshed during the past year, and in a letter to the B.J.P., on how he works up Bromide enlargements. He states:—"Some years ago I conceived the idea of working on bromide prints while

they were still sodden, having been merely passed between two sheets of blotting paper. The method of working was with a spill of rolled up blotting paper, the end of which was dabbed in the color and then dabbed on the print. The color was easily absorbed by the swollen emul-

sion, and quite obviously the method had possibilities". The writer then goes on to tell that it was later given up because of the difficulty "of keeping the print in just the right condition of wetness" and the spill not the best tool. To these defects he now offers the following solutions:

A recent attempt to achieve the same object was much more successful. The tool used was a small sable hair water-colour brush, the hairs being cut square off about a sixteenth of an inch from the ferrule. The stumpy brush is dabbed and rubbed on a piece of cardboard on which some powdered colour has been prepared, and is then "dabbed" on the print. "Dabbed" is the word. If rubbed, it may show grit or streakiness. If the print becomes too dry before the work is complete, it should be slid into a dish of water and surface-dried again, which will not affect the work already done, though the latter can be washed off if desired, leaving no trace. Crayon or 'Billdup' graphite, or both, may be used, the merit of the process being the astonishing speed at which a print can be finished. The work can be fixed by holding the print in front of a fire or a radiator. The brush should contain as little powder as possible at a time, and large areas may be worked over with larger brushes than can generally be used.

Now this is a field in which I am very much at home since it is an essential element in my Dichrome process. The correction of tone or blemishes on the only surface dried print I have used for years and I believe others also. The difficulty of drying I meet by the following arrangement: Two sheets of water soaked blotting paper, resting on a sheet of glass underlie the print which is only surface dried without pressure. This keeps things right for the time required for most cases; if not then I take a new piece of quite wet but also surface dried blotter and lowering it carefully over the print leave it for a couple of minutes in contact and remove it without dragging. So far as the application of color is concerned I have no quarrel with Mr. Knapp's shortened camel hair brush but I use the paper

pastel stumps, large or small as the case requires.

### Fine Grain Focussing Screens

These serve a double purpose: first to ascertain the point of sharpest definition, secondly to secure a bright image. These requirements are called for in photomicrography and in photographing in dark interiors. In the first and more important matter the great essential is that the surface that obstructs the rays and gives rise to an image be of **minimal thickness**, therefore all schemes for making a focussing screen by depositing fine powders, such as barium sulphate in the gelatine film of a fixed out negative are futile; nor are other expedients calling for the roughening of a dry fixed out negative any better, if the excoriations cut any distance into the surface, for the image will be suffused proportionate to their depth. These observations are called forth by reading an article by Mr. D. M. Cuthbertson on improvising a focussing screen, in a recent number of the B.J.P. in which the following directions are given:—

"To get the very finest matt surface there is nothing better than Oakey's No. OO emery cloth. Some fine oil should be put on the plate—this is important—before the rubbing is begun. The writer finds that a horizontal, and then a vertical, motion gives a better result than a circular one. The oil, owing to its refractive index being near to that of gelatine, will hide the matting effect that is taking place, so, to see how the work is progressing, it is necessary occasionally to wipe off the oil with a rag moistened with benzine or petrol. When no more rubbing is required, the last traces of oil should be removed with benzine, and the appearance of the screen will be improved if it is rubbed over with some french chalk.

This process gives a very fine transparent screen, but if something more opaque is required, No. 1½ glass paper should be used instead of emery cloth, but this gives a much coarser result. In this case no oil should be used. The glass paper works best in a dry state.

This may do for an improvised screen; but for serious photomicrographic work the image forming surface will be still too

thick and better results will be obtained by the following method which I published some years ago: Fix out a thin photographic plate, wash it and leave it half an hour in a 10% bath of formaldehyde, dry it with the aid of heat and with the finger covered with a piece of washed leather rub this surface (as described by Mr. Cuthbertson) with No. 00 carborundum powder until the desired obscuration is attained.

It is slow work but the finest microscopical focussing can be done with such a screen. Its surface is so hard that it will stand much knocking about, but it should be protected by a cover of thin glass. By binding two such screens, face to face, under pressure contact, a screen for coarser work may be made, useful for out-door photography with low illumination.

## Competition Contributors

### ADVANCED COMPETITION

June 1934

Edward Alenius  
F. E. Crum  
Evelyn Curtis  
M. K. Curtis  
Hanford H. Douglas  
Norman R. Garrett  
Erwin Gordon  
Jack Hazlehurst

Lionel Heymann  
George E. Jarvis  
H. F. Kells  
Sorab J. Kharegat  
Kichiji Kojimoto  
June Marston  
William Morrow  
John Muller

James L. Noones  
R. L. Norton  
Wayne D. Ormston  
Walt J. Pfeiffer  
Herbert Ransome  
R. V. Rice  
O. F. Smith  
Dr. Max Thorek  
Hobart Watrons

### AMATEUR COMPETITION

June 1934

Ralph H. Anderson  
A. V. Astone  
Helen Louise Barham  
Joe Barton  
F. M. Beckett  
H. C. Benedict  
Cecil H. Biver  
Melvin Browsers  
Rolf H. Bruhn  
Roland Calder  
K. H. Choy  
Margaret B. Clark  
Ray B. Collard  
Paul D. Cravens  
J. Daniels  
Charles Ditchfield  
A. S. Edwin  
Fred C. Ells  
Sara Englemann  
Mortimer Friedman  
Le Roy D. Haskins  
Viola Hawke

E. A. Heath  
Johanna E. Heim  
Edward Hutchings  
Dr. E. E. Hutshing  
Dr. Irving B. Ellis  
D. E. Jack  
Donald C. Jeffries  
A. Geary Johnson  
O. A. Johnson  
Arthur Johnson  
Stanley R. Jordan  
Roy H. Kamm  
William Karsten  
L. W. Kramer  
Ray Kuhn  
Mrs. Ruth Kurtz  
Cuyler A. Lakin  
Walter Lehnhardt  
S. C. Leonard  
L. H. Lynn  
M. Margossian  
R. Mercer

E. A. Murray  
Maung Mya  
Don Kirby Oliver  
Harry E. Perl  
Frank X. Reilly  
John E. Robas  
F. L. Rogers  
J. W. Schuler  
Alex Silverberg  
Eric D. Sismey  
E. C. Stuart  
Herbert Stuhlemmer  
H. W. Thompson  
D. W. Van Devanter  
W. G. Van Doren  
E. F. Voss  
C. A. Waddell  
Lewis N. Willman  
William E. Wing  
Jules & Morris Wislin

## Notes and Comments

### Frank W. Lovejoy New E.K. President

The Eastman Kodak Company has a new president, Frank W. Lovejoy, who recently succeeded William G. Stuber when Mr. Stuber was elected chairman

of the board of directors to fill the vacancy existing since George Eastman's death.

Mr. Lovejoy has been associated with Kodak for 37 years. Three years after

his graduation in chemical engineering from the Massachusetts Institute of Technology he came to Kodak Park as superintendent of the film department. In 1900 he became manager of the Kodak Park Works, in 1906 general manager of manufacturing departments, in 1919 vice-president, and in 1925, when Mr. Eastman relinquished active management of the Kodak Company, general manager.

As president, Mr. Lovejoy retains the duties of general manager.

Mr. Stuber resigned the presidency, with its more active administrative duties, two days after his seventieth birthday. Along with his functioning as chairman, he will continue to watch the quality of the company's photo-sensitive products, his specialty since he joined the Eastman organization in 1894.

Mr. Stuber was above all an expert in Louisville, Kentucky, where he was a successful professional photographer. His original charge with Kodak was dry-plate manufacture. Shortly after he had assumed that work, he took charge of making the sensitive emulsion for films, on the quality of which depended the prosperity of the company.

Mr. Stuber was above all an expert in photographic quality, and his skill in that field supplemented Mr. Eastman's ability as an organizer and an executive. The rapid growth of the company was a result of that association, depending as it did on the continuous improvement in the quality of the Kodak products and on the developments necessary to adapt those products to the great variety of uses to which they are now put.

In 1918 Mr. Stuber assumed charge of all the sensitive materials made by the company, adding the production of photographic papers to that of films and plates. In 1919 he became vice-president in charge of photographic quality.

Upon the retirement of Mr. Eastman from the presidency, in 1925, Mr. Stuber was elected to succeed the founder as president. In that position he has led the company through the difficult problems that have confronted it, both in its do-

mestic trade and in its international trade; but at the same time he has continued to take a special interest in the quality of the sensitive materials.

### Mimosa Papers

Those who are looking for unique surfaces and tones in printing papers will do well to investigate the splendid products of the Mimosa American Corp. The new Orthotype Papers of that company combine the gradation and warmth of tone of a chloide paper with the printing speed of a bromide. Many another type of paper is included in their line. Ask to see samples at your dealers or write to the Mimosa American Corp., 21 West 17th St., New York, N.Y.

### Work for Photographers

Dr. James Sharpe of San Francisco is in charge of the San Francisco branch of the Division of Professional, Technical, and Women's Work which operates under the Emergency Relief Administration of the State of California. As a part of the work of his bureau Dr. Sharpe is interested in providing work and encouraging fine photography by the employment of needy professional photographers in Northern California. The photographic work of the division is sponsored by Ansel Adams, Willard Van Dyke, and George Allen Young.

The amount of remuneration and the hours of work are not as yet definitely established but it is hoped that a minimum of \$24 may be paid for approximately 20 hours of work per month. The photographer will be expected to produce work that will be of some value to the community.

The term professional photographer will be broadly construed so that as many as possible may be eligible for employment. Those who have projects in mind, or who are interested in obtaining work under the Division should apply for application blanks from Mr. Greene, 2111 Webster St., Oakland, Calif., or Mr. Stephens, 25 Oak St., San Francisco, Calif.

### Color Photography Made Easy

Users of film cameras including such miniature cameras as the Leica, Contax,



Memo, etc., will do well to investigate the possibilities of making splendid pictures in full color by the use of the Lumiere Filmcolor. The process is practically as simple as ordinary snapshooting and results in a transparency of great beauty. Write to R. J. Fitzsimmons Corp., 75 Fifth Ave., New York, N.Y. for full information and their Filmcolor Booklet, or ask your dealer about this interesting process.

#### **The Fix Focus Camera**

Abe Cohen's Exchange, 120 Fulton St., New York, N.Y., is now offering the Fix Focus camera at the new low price of \$22.50. This is said to be the lowest priced camera on the market equipped with an F:4.5 lens in Compur shutter. The camera is of the folding type, self-erecting at the push of a button. Takes 8 exposures  $2\frac{1}{4} \times 3\frac{1}{4}$ " or 16 exposures  $1\frac{1}{8} \times 2\frac{1}{4}$ ". Focusing is accomplished by rotation of the front lens mount. Write to the above reliable firm for full particulars.

#### **Ampro Bargain**

The Bass Camera Co., 179 W. Madison St., Chicago, Ill., is offering a real bargain in a Ampro 400 W. projector. The offer involves a saving of \$50.50 to the purchaser. The machines are new and fully guaranteed and the fine quality and smooth performance of the Ampro pro-

jector is too well known to need elucidation here. Individuals as well as dealers are invited to communicate with the above firm for full particulars.

#### **George Henry High, F.R.P.S.**

Telegrams and letters of congratulation have been pouring in upon Mr. George Henry High from his many photographic friends throughout the world, and this for two reasons. On May 15th Mr. High celebrated his seventieth birthday, and on that same day was elected to fellowship in the Royal Photographic Society. A prominent pictorialist, an ardent worker for the advancement of photography, Mr. High pointed up a long career of service with his masterly handling of the Century of Progress Salon, in 1933. Congratulations and many happy returns of the day.

#### **Willoughby Displays Mortensen Portfolio**

The Mortensen Portfolio of 25 Prints is currently on display at Willoughby's, 110 W. 32nd St., New York, N.Y. This affords a splendid opportunity for residents and visitors to New York to examine the portfolio and appreciate what an extraordinary value it is at the price of \$10.00. The display will remain during most of June, do not miss it.

## **Our Book Shelves**

**Projection Control**, by William Mortensen. Published by Camera Craft Publishing Company, of San Francisco. Paper covers, price \$60.

This little book contains considerably more than a simple statement of the ordinary practices of dodging, etc., during enlargement, for it also shows by means of text and illustration how a number of

the more unusual means of projection control may be put to pictorial use. The four principal methods of control given here are: control by framing; control by local printing and "dodging in"; control by alteration or distortion; control by combination and montage.

A most helpful feature of the book is the fact that every important step, every

means of control are fully illustrated by pictures showing the image both before and after manipulation. There are twenty-four illustrations in all.

A large part of this book appeared in the November and December 1933 issues of **Camera Craft** and created such a sensation that in spite of a greatly increased print order the issues were sold out almost immediately. This book is published in response to repeated demands from those who could not obtain the above mentioned issues of **Camera Craft**.

There is however a good deal of valuable information in the book that did not appear in the articles. Most important is a completely new chapter on the exposure and development of the negative for the purposes of projection control. This is of more than ordinary usefulness since Mr. Mortensen recommends a procedure that is at variance with common practice. Four new illustrations in this section show the results obtained by Mr. Mortensen's methods as compared with other methods of lighting, exposure, and development.

Illustrations have also been added showing Mr. Mortensen's arrangement for tilting the easel, and the various manipulations for local printing and "dodging in".

We make no exaggeration in stating that this material has been hailed by photographers throughout the country as the most useful contribution to photographic literature that has appeared in years.

**Ten Lessons In Camera Journalism**, by H. Rossiter Synder. Put Your Camera On the Payroll, by H. Rossiter Snyder. Published by the Rossiter Snyder Publishing Co., Guilford, Conn. Paper covers price \$.50 each.

The two books listed above comprise numbers six and seven of Mr. Snyder's helpful series of instruction books for the aspiring or practicing camera journalist. As we have said before in these columns these books easily contain the most practical information on this subject that is available. A list of chapter headings will give an accurate idea as to contents. No. 6: Making Your Start, Technique of

Journalistic Prints, Successful Production and Sale, What Kind of Photographs Sell Best? Dealing With Editors, Advertising Photography, Five Profitable Camera Specialties, Five More Profitable Specialties, How to Syndicate Photographs, and The Essence of Camera Journalism.

Chapter headings of No. 7 are: How are You Going to Do It?, Suggestions on the Writing of Articles, Purposeful Versus Pointless Photographs, What Kind of Camera to Use, Profits on the Law of Averages, Child Portraiture, Photographs Sold to Double Markets, Idea Sources, and a set of review questions designed to test how well the reader has assimilated the material of the first five booklets.

**Travel Photography with the Miniature**

**Camera**, by Karl A. Barleben, Jr., F.R.P.S. Published by The Fomo Pub. Co., Canton, Ohio. 58 pages, paper covers, price \$.50.

This interesting little volume describes the methods and possibilities of miniature photography while traveling. There are chapters on Train, Automobile, Steamship and Yacht, Aerial, Mountain, Seashore, and Tropical photography, and an especially useful chapter on Developing while En Route.

**Luci Ed Ombre**, published by Il Corriere Fotografico, of Torino, Italy. Paper covers \$3.50.

This collection of fifty reproductions, presents a cross-section of the best Italian pictorial photography in 1933. The wealth of fine statuary and beautiful buildings that are to be found in Italy are reflected in these pictures as many of the Italian artists have found their subject matter in such material.

**Modern Illustration Processes**, by Charles W. Gamble. Published by Pitman Publishing Corp., of London and New York. 388 pages, cloth bound, \$3.75.

This book is directed to students of printing in all its forms, and its main object is to explain and clarify the basic principles upon which the processes involved rest. The author has had many years experience as a teacher of these sub-

jects and as principal of a school of photo-engraving. Those who are interested in keeping up to date on all reproduction processes and who wish to understand the advantages and disadvantages, the limitations and possibilities of these processes will find this book indispensable.

**Movie Making Made Easy**, by William J. Shannon. Published by Moorfield and Shannon, Nutley, N.J. 219 pages, cloth bound, price \$2.00.

This is a complete text book for the movie maker, simply and clearly written. It covers the use of the camera in all its ramifications, processing of both ordinary and reversal film, editing, titling, scenario construction, trick work, lighting, make up, club organization, club producing units, animated cartoons, aerial and microscopic photography, color, and much else that space prevents our mentioning.

The book should be of value not only to the beginner in movie work but to the fairly advanced amateur as well.

**Scenarized Film Plans**, by James W. Moore. Published by the Amateur Cinema League, Inc., of New York.

This little booklet presents four scenarios worked out in careful detail all of which are well within the reach of any amateur. Whether or not you desire to use a scenario prepared by some one else, the booklet will be of value as an example of the proper means of working up a story for filming. The booklet is distributed free to members of the League but is not otherwise available.

**The Japanese Photographic Annual 1932-33**. Published by Asahi Shimbun, of Tokyo, paper covers, \$3.00.

This volume contains 88 examples of the best Japanese photography of last year, and a few brief articles in English reviewing photographic activity in that country. The influence of "modernism" is plainly evident in a large number of the pictures, in fact there is more of this type of work shown than in any of our western annuals with the exception of Modern Photography. It is interesting to note that the "modern" spirit in combination with the

natural flair of the Japanese for pictures in which pattern plays a dominant part has resulted in the production of some quite pleasing pictures. The reproduction quality seems somewhat improved over previous issues but is still rather lacking in brilliance.

**Leica In Science**, by Willard D. Morgan. Published by E. Leitz, Inc. of New York. 68 pages, paper covers, price \$2.50.

A most useful little booklet for those interested in any form of scientific photography with the Leica camera. Examples of the work which is being done in various fields are shown, along with illustrations and explanation of the set up and accessories used for the particular work under discussion.

**The Cinematographers Book of Tables**, by Fred Westerberg. Published by The International Photographer, of Hollywood. Flexible leather covers, price \$1.00.

A great saving in time can be made and much error avoided, by reducing the technical information required in filming and processing to tabular form for ready reference. Mr. Westerberg has done a good job with his book and we wish we had the space to give some idea of large number of useful tables contained in the volume. Suffice it to say that a very complete list of tables is supplied for 35mm., 16mm., and 8mm. work.

**Beattie Hollywood Lighting Course**, mimeographed, price \$2.00.

The well known light manufacturing firm of Beattie has been conducting courses in lighting at their Hollywood studios for a number of years. Desiring to make the information contained in these courses available to those who cannot come to Hollywood, Beattie have now issue a correspondence course, at the above mentioned very reasonable price.

The course consists of six lessons, in each of which two of the famous Beattie lightings are fully discussed and explained. Diagrams of all of the lightings are given.

# C A M E R A



"The Mad Puppeteer"

4th San Diego Salon

Ganahl Carson



# CRAFT

REG. U. S. PAT. OFFICE

**JULY 1934**  
**VOL. XLI Number 7**  
**SAN FRANCISCO**  
**• CALIFORNIA •**  
**PRICE 20c**



## In This Issue

**CREATIVE PICTORIALISM V . . . William Mortensen**  
**MINICAM PROBLEMS . . . . . Delbert E. Jack**  
**CAVE PHOTOGRAPHY . . . . . George F. Jackson**

Beginning with the October, 1934 Issue  
(September 25th, 1934)

*The subscription price of*

# CAMERA CRAFT

*will be*

**\$2.50 a year - 25 cents a copy**  
**\$3.00 Foreign - \$3.10 Canada**

Mounting costs of production and the desire to give our readers the best, compel us to adopt this new schedule.



Subscriptions up to September 25th, 1934, will be accepted at the present rate:

*One year*

**\$2.00 U. S.**

**2.50 Foreign**

**2.60 Canada**

*Two years*

**\$3.00 U. S.**

**4.00 Foreign**

**4.20 Canada**



*At your dealers or*

**CAMERA CRAFT PUBLISHING COMPANY**

703 Market Street

San Francisco, California






# Important

## DETAILS

**C**RITICALLY, the Plena-chrome Brothers subject a *Fine-Grain Plenachrome* enlargement to the exacting test of comparison—with the actual scene. Delightedly they exclaim upon the result, for the detailed beauty of the enlargement rivals nature's own.

An even finer grain than that of Agfa Plenachrome accounts for quality *with detail*—in projection prints of many diameters. A special non-abrasion top-coating and an anti-halation back-coating protect these details from surface scratches and fuzzy highlights. In addition, all the desirable characteristics of the famous Plenachrome emulsion have been built into this special fine-grain roll film.

Ask your dealer for Agfa Fine-Grain Plenachrome.

 Fine-Grain Plenachrome is available in several sizes: FA8 (for all cameras using vest-pocket film); FB2 (for cameras using  $3\frac{3}{4}$  roll film for either full or split-frame pictures); also in special cartridges for Leica, Contax, and similar cameras, and for the Memo.

BRANCHES: BOSTON NEW YORK CINCINNATI CHICAGO  
KANSAS CITY SAN FRANCISCO LOS ANGELES  
AGFA ANSCO LTD., 204 KING ST. EAST, TORONTO, ONTARIO



Made in America by

**AGFA ANSCO  
CORPORATION**

BINGHAMTON, N. Y.

Please mention Camera Craft when corresponding with Advertisers

# Lios- Scop



## EXPOSURE-METER For Still and Cine Cameras

This is the simplest and most accurate device fashioned for the gauging of correct exposure. Instead of comparing the light intensity of several squares or circles, a glance thru this meter shows an arrangement of 16 light values expressed in terms of exposure time and ranging from 4 minutes to 1/250 of a second. The last visible number is placed opposite the speed of the plate or film on the outside of the meter and the correct exposure for all diaphragms as well as for cine work is instantly and automatically shown.

Price complete  
with sole leather  
case

**\$5.75**

Free trial gladly granted.

**BURLEIGH BROOKS**

127 West 42nd Street

New York

# COMING

William Mortensen. And now we have big news! the Minicams. Mr. Mortensen's series of two articles, the Use of the Miniature Camera for Pictorial Photography will start in our August issue. We don't need to tell you how good, how very helpful, these will be. A single Minicam can afford to miss them.

Cinema Section. In our August issue Mr. Palm will present an unusually valuable article on additional effects as Fades, Dissolves, and Double-Exposure to film after it has been processed, by using a projector as a printer. Don't miss it.

A. Wittmer has prepared a really instructive article fully illustrated by means of both pictures and accompanying diagrams, on **Portraiture with Two Photofloors**. This will give the reader full information on how to make portraits of excellent quality with a minimum of lighting equipment.

Cecil R. Nelin will tell just what you want to know in his very instructive article on **Night Photograph**. He is a real night photography fan and his enthusiasm is evident in his article to the point of contagion.

P. H. Oelmer is a successful illustrative photographer, an instructor in photography, and a prominent pictorialist. Several of his pictures have won awards in our advanced competition. He is convinced that the practice of still life photography is a most practical method for learning a great deal about both composition and lighting. His article on **Still Life Photography** will be written from that view point.

Beauford B. Fisher is a name which we believe Camera Craft readers will soon learn to treasure, for he reveals himself as an original experimenter, in other words, just the sort of man who has something valuable to say to the student of photography. His pictures have been hung in virtually all of the large Salons throughout the world. He has recently taken up photography as a profession. An example of his work appeared in our Advanced competition for November. We pointed out that this picture was an experimental example of fine technique in the paper negative process in as much as the skin textures had been so well maintained. Mr. Fisher will describe the paper negative process in full detail in an early issue.

Edwin C. Buxbaum, A.R.P.S., whose name is already familiar to the readers of this magazine, has prepared a carefully worked out series of four articles on **Miniature Camera Technique** which we know will prove very helpful to all Minicams. The sections on films and filters are of especial value and approach two subjects from a new angle that is most instructive.

P. Douglas Anderson, A.R.P.S., whose article "Outdoor Portraiture" in our October issue received much favorable comment, has devised a splendid method of illustrating the various lightings that may be obtained outdoors. His article "More About Outdoor Portraiture" will appear in an early issue.

George H. Needham, F.R.M.S., whose article "Low Power Photomicrography" appeared in our February issue is now working on a second paper which will discuss the ramifications of high power work. This paper will be of great interest to those who are doing advanced work in photomicrography.

Albert Jourdan has prepared a very instructive article describing just how he performed an actual commission for a montage photograph. "A Job of Photomontage" will interest both the professional and the amateur for the principles of montage have a wide application.

Thomas A. Wilson, M. S., has devoted much time and thought to the subject of composition. He has prepared a series of three illustrated articles which we are confident will clear away much of the mystery surrounding this important aspect of picture making.

# Now! Ampro REGULAR \$150.00



## Best 16MM Value

Bass... value leader... offers Precision Made Ampro... New guaranteed—at a saving of \$50.50—Powerful—Brilliant—Plastic projection—Long-life—Smoothness—Quietness assured.

400 watt Biplane Mazda light is equal to 500 watt. Kodachrome may be used. Instrument complete with cord and plug—instructions—carrying case. Fully guaranteed for one year. Regular \$150.00; Bass price \$99.50.

Full details and Bass Bargaininggram No. 212 is free on request.

DEALERS: WRITE FOR DETAILS

**\$99.50**

### GUARANTEE

"I personally guarantee satisfaction or your money back. I guarantee the 400 watt Biplane Filament Mazda equal to 500 watt in illumination."

Charles Price  
President

**BASS CAMERA CO.**  
179 W. Madison St. Chicago





*"L'Amour"*  
*William Mortensen*

# Venus and Vulcan

An Essay on Creative Pictorialism

William Mortensen

## 5. A Manifesto and A Prophecy

**O**N February 26, 1830, there was a riot at the Theatre Francais. The occasion was the opening of Victor Hugo's play *Hernani*. For one hundred nights, the length of the play's run, the riots continued. Staid academicians and frowsy radicals yelled insults at each other, and rival claques shrieked each other down. Thus with the Gallic instinct for dramatizing issues, the conflict between the academicians and the turbulent Romantics was brought into the open. As happens many times, the issue in this case was more important than the occasion of it. Passing years have revealed *Hernani* as a rather empty and noisy piece of rhetoric, but the impulse given to the Romantic movement is still effective today.

There is dire need at present for a similar event in photographic circles. Photography as an art that was born and made its first steps during the reign of the late Victoria, has evolved along lines of safe respectability. Well-meaning dullness has been honoured above everything else. It would be an excellent thing if all this could be brought to an end. Photography, in a word, has been a virgin long enough, and it is high time that it went out with the boys and learned the facts of life. A well-managed riot at the London Salon would be a good beginning, with jeers and cheers from opposing factions, stones thrown and heads broken, and jury-members tossed into the Thames. Unhappily there seems to be little prospect of such a thing coming to pass, as the salons today appear to be content to continue in the ancient tradition of careful dullness.

There have been numerous rancorous moments in the history of the salons, of course, but they have been largely limited to petty rivalries, surreptitious cloakroom gossip, and personal jealousies. Of honest, open factionalism there has been very little—which is unfortunate, for a good dose of it would serve as an excellent tonic to all photographers interested in anything beyond the crassest commercial aspects of their craft. Only in such a manner may they be aroused to think about what



they are trying to do. New ideas are brought up, and old ones are subjected to a severe going over, and after the hurly-burly of dispute both sides find that they have gotten somewhere: even if they have not arrived at a complete appreciation of the other side's ideas, they have at least clarified their own.

Let photographers therefore take unto themselves soapboxes and proclaim their opinions. Let verbal brickbats fly freely and sound body blows be given and taken. Perhaps the resultant tumult will serve to rouse the art of photography from its drowsy contemplation of its own umbilicus, and persuade it to get up and go places. Perhaps the salons may be inspired to seek other meat than a monotonous succession of safe and sound banalities. Perhaps photographic degrees may come to be given on the basis of merit—and no other.

Such honest statements of personal doctrine and practice as Mr. Adams' recent articles in these pages are a step in the right direction. More such strictly personal or factional views are greatly needed. To cast fuel on the fires of faction is indeed the modest aim of the manifesto that follows. In it I endeavor to point out what seems to me to be the most promising direction for creative accomplishment in photography as indicated by past efforts. So far as the articles of this manifesto apply to technical matters they cannot be definitive, for the technical basis of photography is still shifting ground, and may be vastly changed in the space of the next few years. But so far as the actual substance and essence of the art is concerned, these I believe to be as absolute and unchanging as two plus two and not subject to the vagaries of changing techniques.

1. *Photography is one of the graphic arts.* This may not appear a very exciting generalization, but a proper understanding of it will clear up prevalent confusion as to the relation of photography to the other arts and serve to dispose of the reiterated accusation that pictorial photography "imitates" such graphic arts as lithography, etching, etc. As one of the graphic arts, photography is concerned with their common problem of representing form in terms of pattern and tonal values on a two-dimensional surface. Being thus concerned with a common problem, they necessarily all deal with similar material in similar ways. But photography no more "imitates" etching than etching imitates painting. Those who accuse pictorial photography of being imitative of other graphic arts are misled by superficial or accidental characteristics and show a lack of understanding of the essential quality of the photographic medium. As a matter of fact, it would be only by the greatest of effort that photography could be made to remotely resemble etching, and such effort would be vainly and foolishly spent, for photography has its own unique qualities which are unavailable to etcher and painter.

2. Photography, like any other art, is a form of communication. The artist is not blowing bubbles for his own gratification, but is speaking a language, is *telling somebody something*. Three corollaries are derived from this proposition.

- a. As a language, art fails unless it is clear and unequivocal in saying what it means.
- b. Ideas may be communicated, not things.



*"On the Balcony"*

*William Mortensen*

Print from a Miniature Camera Negative

c. Art expresses itself, as all languages do, in terms of symbols.

Let me elaborate somewhat on these three corollaries. (a) Wilful obscurantism, using the art language to hide instead of reveal the thought, even the masking of stark incompetence with specious profundity, have unfortunately been characteristic of a great deal of modern graphic art. Happily this craze for being unintelligible has not greatly affected photography. Confusion and lack of clarity there have undoubtedly been, but not of the wilful sort: rather, they have resulted from the artist's imperfect apprehension of his own thought.

(b) It is through failure to realize that only ideas may be communicated and not things, that, it seems to me, the purists have gone astray in their theory and practice. Perversely, hopelessly, they struggle to present complete, objective reality in their pictures—the thing itself rather than the significance of the thing. It is as though one with the resources of speech at his command should elect to talk by pointing at things. Their effort is in its very nature foredoomed to failure; for to the extent that a picture renders the mere thing itself, it fails to tell anything, and to the extent that it tells anything it ceases to be the mere thing itself.

(c) Graphic art expresses itself, as do all languages, in terms of symbols. I do not mean to imply any necessarily esoteric quality in art, but simply that the lights and darks that comprise the picture of Mary Jones (to revert for the very last time to her convenient example) are no more the actual Mary Jones than are the nine letters that comprise her name. Yet the lights and darks *signify* Mary Jones just as the nine letters do. And her picture is capable of being much *more* than merely Mary Jones, just as the nine letters of her name may be moon and stars and roses and nightingales to Mary's boy friend. The *meanings of things*, not things themselves, are the ultimate material of art.

3. Emotion is an essential quality of pictures. Rarely, however, are pictures explicitly emotional in content—indeed, the direct representation of emotion often smacks of the falsely theatrical. Rather it is through the overtones of meaning that the emotional basis is established. Proper attention to establishing an emotional basis would greatly lessen the production of "still life" subjects consisting of casual arrangements of vegetables and kitchen utensils. Eggbeaters serve much better for their original purpose of stirring up eggs than for stirring our emotions. There are, of course, types of still life in which an emotion is definitely conveyed by the pattern or the connotation of the objects; but the practice of designating as a picture anything that will submit to having a camera pointed at it argues a strange blindness to picture values on the part of those who do it—to say nothing of a deadly lack of humour.

4. *Technique of itself has no claim to artistic consideration.* It is solely a means to an end: in the case of the graphic arts the end is the making of good pictures. Technique considered apart from strict relevance to the end in view is capable of becoming a very dangerous thing that will eventually lead one into a stark and sterile wilderness unlit by beauty and unwarmed by emotion. The slimmest of technical means will suffice for one who has the true urge to create.



*"Barbara"*

*William Mortensen*

Print from a Miniature Camera Negative

5. However reprehensible morally, the doctrine that the end justifies the means is certainly true and valid aesthetically. No limitations may be laid upon the use of technical aids, other than that they must not manifestly violate the essential quality of the medium. Such freedom applies equally to each and every stage of the photographic process. Throughout the choice of technical methods and materials, there is just one fundamental law to be observed: all methods, all materials, all processes are legitimate if the essential emotional and dramatic effect of the product is by their use enhanced.

Nor may any restrictions be laid upon the artist's pictorial inter-

pretation of his subject material. The perfect setting forth of the picture idea is its own justification. This permits free selectivity to be applied to the original image, together with all means of control through which selectivity is attained. Local printing, double exposure, multiple printing, distortion, montage—any variation or combination is valid if the use of it is related to subject and theme.

6. *Simplicity* is a principle of the greatest importance. To photographers it is especially important, because they are particularly prone to honour it only by violating it. Obviously, as art is a form of communication, the simple means is the most certain means for making a meaning clear. While the better informed workers strive for this simplicity in their results, it does not occur to them to apply this same axiom to their equipment. So they succumb to the seductive blandishments of advertisers and burden themselves with several cameras with several lenses, and fluctuate distractedly between several brands of film and paper and several formulas for developing. Let them rather set themselves an ascetic ideal of one camera, one lens, one brand of film and one developer. More can be done with these than anyone has done yet.

7. Photography is capable of being just as personal in its idiom as any other graphic art. Let every photographer, then, neither superficially copy other styles nor seek for the merely freakishly different, but seek first of all to express *himself*. If he succeeds in completely and sincerely doing this, he will have, for better or for worse, created a personal style. Such a personal style is always more direct and effective in its appeal than one abstract and impersonal; for he who sincerely expresses and realizes himself in his work, expresses also a little of the common soul of mankind.

Whither photography? I cannot take leave of these articles without one glance toward the future, concerning which I have the customary unhealthy human curiosity. I realize of course that prophets seldom come to any good end, that they are proverbially lacking in repute in their own country, and that even the lesser breeds who specialize in weather and politics are subject to unjust and unkind derision. However, in the brief speculations that follow I have endeavored to root all my predictions firmly in the present—after the manner of H. G. Wells, who is perhaps the most successful of modern soothsayers.

It seems assured, in the first place, that the disreputable little brother of the other graphic arts will shortly attain to general and undisputed recognition as an art medium. The public will learn to distinguish between photography as a means of quick and unlimited reproduction and photography as a means of producing unique works of art. Photographers on their part will learn the value of limited editions, and will destroy their negatives after making a few prints. Possibly even the salons will come to realize the unique value of prints to their makers and will return them after exhibiting them.

Rolling my prophetic eye momentarily in the direction of the salons, I foresee numerous changes in their organization and policies. They will cease to give room to fashionable portraits that are remarkable only for the fame or notoriety of their subjects. They will judge pictures





*"Sojin"*

*William Mortensen*

solely on their pictorial merits, instead of segregating them on the basis of the processes used—an utterly artificial classification. On the other hand, a separation of salons will certainly take place along the lines of the worker's aims. Thus a distinction will be made between applied or commercial photography and pictorial photography. There might even be a salon for pure photography (provided, of course, that there are any purists left after the publication of these articles).

There seems no doubt that the miniature camera will be the choice of pictorialists of the future. The amazing strides of the last few years in improving and refining the mechanism of these instruments and in perfecting developers augur even more spectacular improvements to come. It is entirely possible that, except for very specialized purposes, the miniature instrument will supplant all other types of cameras.

There are a number of technical devices that seem to me possible or even probable developments of the not very distant future. It may be that some of these prognostications seem to border on the fantastic; they are no more extravagant, I am sure, than Daguerre's strange ideas seemed to his contemporaries.

1. A great deal of inconvenience and sloppiness will be taken out of development by the invention of a technique of dry development.

2. The uncertainty and wastefulness involved in judging exposures will be eliminated by a photo-cell connected with diaphragm and shutter which will automatically give the correct exposure for every diaphragm opening and every degree of illumination.

3. Full colour range will be obtained by means of a process of spectrum division rather than through the present awkward separation process involving filters and dyes.

4. Actinically active rays of a type now unknown will provide absolute control of the illumination of the subject.

5. The processes of projection control will be made much more flexible by means of a device for controlling accurately and precisely the amounts of light passing through the various parts of the negative. Such a device might even be installed in a camera so as to permit local intensities to be controlled as the picture is taken.

6. The very destructible nature of papers and films utilizing silver halides will be somehow overcome. Perhaps by electrification of the camera the unique qualities of selenium will be used for recording an image.

7. Photography with a minimum of illumination will be possible by means of a system of light intensification based on the photo-cell.

These are a few of the likely refinements of equipment. But when and if all these things become realities, the camera will still be fundamentally a box with a burning glass on the front of it. And it will still be true that the man who holds the box, not the gadgets attached to it, will determine the result.

\* \* \*

To Pompilius the Younger I am indebted for the particulars of the following episode.

In due course of time it came to pass that Venus and Vulcan stood on opposite sides of a cradle, gazing with goggle-eyed devotion at the contents thereof—Aciel, their first-born, a distinctly unpromising looking infant, bright red in colour, and very sketchy in appearance.

"Wuzzums muvver's icky wicky ducky?" remarked Venus.

"Madam," said Vulcan, "kindly don't insult my sons intelligence by such language."

"Your son," said Venus. "Ha!"

"Just what," said Vulcan severely, "do you mean by 'ha'?"

"Your function was merely biological," said Venus "It's perfectly obvious that he takes after my side of the family."

"The hell he does," said Vulcan. "Look at his broad shoulders. Look at the way he has grabbed my finger. Oh, no, he's going to be a blacksmith like his daddy."

"A son of mine a blacksmith!" Venus snorted delicately. "Look at the height of his brow. Look how wide he is between the eyes. He is going to be a poet or an artist. He is going to see visions and dream dreams."

"If he starts dreaming any dreams around me," said Vulcan, "I'll beat the daylights out of him."

"Vulcan," screamed Venus, outraged, "you wouldn't!"

"Oh, wouldn't I!" said Vulcan smugly. He plucked the infant out of the crib and sat it on his knee. "Now listen to me, young man," he said, "you and I understand each other, and I guess we will be able to figure out things in the future without any assistance from your mother."

The child meanwhile made no comment, but a look of intense concentration momentarily passed across his face.

Vulcan paused, looked doubtful, then embarrassed. "My dear," he said, "perhaps it would be just as well if you took him for a while."



*"Auf Wiedersehen"*

*This is the fifth and final installment in the "Venus and Vulcan" series.*

*Next month Mr. Mortensen will write on the "Use of the Miniature Camera for Pictorial Photography."—ED.*

# Solving A Few Minicam Problems

Delbert E. Jack

IT may be possible, but certainly impractical for the miniature camera user to change film, developer, or even developing time, to suit a particular group of pictures contained in a roll with many other pictures. It is not unusual for a roll of 36 exposures to contain four or five separate classes of pictures, such as landscapes, action, night shots, portraits, etc. The experienced worker in taking these same pictures with plate or film pack would possibly have changed film and developer and very likely changed developing time to suit his particular exposure. It is no wonder then that the user of a miniature camera exceeds all others in his interest in films and developer. The general belief that he is interested in nothing but fine grain is not true for at the present time there are films and developers that will satisfy the most avid fine grain fan. His real interest is to be able to obtain *satisfactory* pictures from every condition he must meet *plus fine grain*.

For several years, I have been trying the various films and developers, hoping to settle down to one set. My goal was to find the fastest film, which when developed by the selected formula, would give an ideal negative for all purpose work, a negative that would fulfill the following three requirements.

1. Stand twenty diameters enlargement with little evidence of grain.
2. Have detail in high lights and shadows that will give print quality.
3. Give satisfactory rendition of color values and permit use of filters for the particular result desired.

Orthochromatic films fall short of the third requirement that I set, so altho they are ideal for perhaps the largest number of pictures we take, it seemed that whenever the camera was loaded with it, there occurred the time and place when I wanted what it lacked; such as exposures with a red filter or exposures late in the evening with the yellow orange rays furnishing a large percent of the available light. Consequently ortho film was eliminated.

With super sensitive film developed in D-76 or similar formula I obtained well balanced, nice negatives that failed to meet requirements

only because my scale of enlargement was limited. Particularly was grain very evident unless my exposure and development resulted in exactly the correct amount of silver deposit. I said that I obtained nice negatives, this was so when full exposure and minimum development was given. It will be recalled that originally a developing time of 9 to 12 minutes was given for D-76. Later workers advocated 12 to 15 minutes and then they gave a modified D-76 containing boric acid which called for 20-22 minutes. What was actually happening was that in their desire for speed, they were greatly under exposing and attempting to compensate for this by long development. In fact the largest percentage of the exposure fell on the long foot of the exposure-density curve that is typical of panchromatic films which simply means that only the higher lights of the subject were receiving sufficient exposure to register correct gradation on the film. A great share of the shadow detail was beyond the threshold of this curve and consequently failed to even register. Over development did increase contrast and gave a printable negative, but one sadly lacking in correct rendition of tones.

By trying S.S. Pan films with normal exposure and developed with Purdon's P. Diamine formula, I obtained a very satisfactory grain or absence of it. However the shadow detail was sadly lacking and negatives were quite contrasty.

Next came Sease No. 3 P. Diamine formula. By following instructions given by Mr. Casebolt in his two articles in CAMERA CRAFT of November, 1933 and January, 1934, I obtained satisfactory grain and print quality. However even when using S.S. Panchromatic film at 18° Scheiner (to allow for necessary increased exposure with this developer) there were many times that I wished for a faster film.

Hearing that Panatomic or Background film was considerably faster than its rated 17° Scheiner, I tried it out using D-76 developer. It gave a very fine grain that was satisfactory. However if I speeded it up beyond its 17° rating, I was again into the foot of the before mentioned exposure density curve and my shadow detail suffered. Consequently nothing was gained over S.S. with Sease 3 developer.

After this tirade, you perhaps are wondering what I have to offer. Here it is:—Use S.S. pan film, double the exposure or in other words rate it at 20° Scheiner and develop in Purdon's P. Diamine formula for 70 to 80% of the recommended time. A very satisfactory negative results that fulfills the three requirements better than any other one I know of at present. Undoubtedly someone will come along with a developer that will satisfy the three requirements without any over exposure. However until they do, I believe this is the best solution.

A word to those who try this, if you have been reading your exposure meter on the under-exposure side, your shadow detail will still be weak and further a *very* thin negative will result. Also if you develop for 80% of the given time and obtain a negative too contrasty for the scale of paper you like, a little more exposure and a little less development will bring it to fit your paper. My own experience is that 90% of my negatives were previously so contrasty that normal paper required considerable manipulation to record the tones in the negative, conse-



quently I try to obtain as soft a negative as possible and am developing 70% of recommended time. It is much easier to use a contrast paper for the 10% of the negatives that require it.

For those who do not have Purdon's P. Diamine formula for Super Pan it is as follows:—

Water . . . . .	400 c.c.
Sodium Sulphite (dry) . . . . .	30 grams
P. Phenylene-Diamine . . . . .	5 grams
Glycin . . . . .	5 grams

Development time:—

Deg F	For	For	
	Normal Exposure	Double Exposure	
		70%	80%
60	36.4	25.5	29.1
61	34.9	24.4	27.9
62	33.6	23.5	26.9
63	32.4	22.7	25.9
64	31.2	21.7	25.0
65	30.	21.	24.0
66	28.9	20.2	23.1
67	27.8	19.5	22.2
68	26.7	18.7	21.4
69	25.7	18.0	20.6
70	24.8	17.4	19.8

In determining the correct exposure to best fit the picture, I believe that reading the meter for the total view to be taken is an inefficient method. Particularly is this true for a meter of the extinction type which has no correction for the amount of contrast present. A meter registers the total light entering it which is an average for the scene at which it is pointed. It is designed to locate an exposure somewhere near the middle of the scale of the negative. Consequently should 90% of the view be very bright and only 10% is in shade or is dark, it would locate an exposure that would be insufficient for the dark portion. A mathematical computation (which is not nearly as complicated as it perhaps will first seem) is a much more accurate way of determining an exposure which will insure you of placing the entire scale of the picture on the negative. It is most important with long scale pictures, but can also be applied to short scale ones to the advantage of obtaining thin negatives full of detail. Take for example Figure 1 which represents a long scale subject. The exposure for the highest light, namely the white stucco was read by placing meter within a foot of the wall. It gave 1/300 second at f:6.3, while in the same manner the shadows gave a reading of 2/5 second at f:6.3. The ratio of high light to shadow or the scale of the picture is  $2/5 \div 1/300$  or 120:1. Since I was following the above given procedure of full exposure and shortened development,



*Fig. 1*

there was less danger of the high lights blocking up than there was of absence of shadow detail. By factoring the scale of 120 to obtain two numbers, one approximately twice that of the other, I find 8 and 15 (which multiplied together give 120). Then  $1/8$  of the shadow exposure or 15 times the high light reading will give an exposure which should insure registering both shadow and high light detail. The exposure of  $1/20$  second at  $f:6.3$  was used while a straight reading of the entire scene would have been  $1/60$  at  $f:6.3$ . Should the shadow have only been 10% of the picture area, a direct reading would have been probably  $1/200$  at least and there would not have been a chance to record any shadow detail. In applying this, especially for the above recommended development, I would vary the ratio of the two factors of the scale directly as the length of scale decreases. In other words for a scale of 20:1, I would use 4 times the high light exposure or  $1/5$  of the shadow exposure. Since the scale is short, it is easier to place it on the scale of the negative, and by reversing the procedure for long scale pictures, it merely places the exposure on the lower scale of the film, which would give a thin negative full of detail. For a scale of 80:1 I would recommend 10 times the high light exposure or  $1/8$  of shadow exposure; and for a scale of 40:1, 6 and  $1/7$  respectively.

*The author in the "un-  
explored regions" of  
Wyandotte Cave, Ind.*

1-A Kodak at 15 feet;  
1, Actino #12 flash  
cartridge; F:7.9, pan.  
roll film.

## Cave Photography

George F. Jackson



**C**AVE photography is one of the most interesting hobbies that can be imagined. For one must be an explorer as well as a photographer to get good cave pictures; and to those who love the tang of adventure in strange and sometimes untrodden places, there is nothing to compare with this sport. To find a mountain that has never been ascended or a region on the earth's surface that has never been photographed or mapped, one must make long journeys and spend a fortune. But caves may be found wherever there are thick beds of limestone underfoot, and other than flashlight cartridges or the like, and camera the trip calls for very little equipment.

Caves, clothed in eternal blackness, may seem a strange place to look for scenery and to get beautiful photographs, but there are wonderful pictures in these strange underground places, if one wants to take the trouble to get them.

There are many to whom the bare thought of entering vast natural cavities in the earth is horrible and mad, but all the hardships and possible dangers fade into nothingness when one sees the marvelous pictures in solid rock so lavishly displayed.

As one sits spell-bound in some underground chamber drinking in the sheer beauty of his surroundings, "scenery" seems an apt term.

One may see and photograph grottos and palaces all lined and decorated with lovely jeweled plumes and feathers of sparkling rock; or beautiful forms of crystalline sulphite of lime and calcite. One may see crystals of gypsum that have grown and spread into a thousand fantastic forms and simulate the flowers of the upper world, but whose petals are gigantic in comparison. Even in a room devoid of formations one may



*Cathedral, Caverns of Luray, Va.*

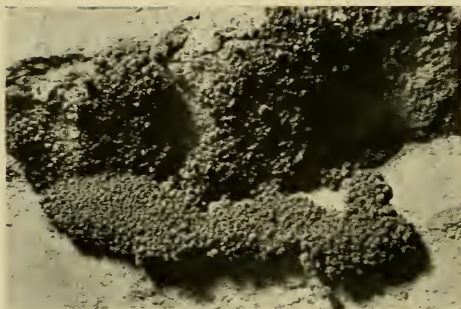
*Courtesy Luray Caverns Corp.*

see how water charged with carbon dioxide has served as Nature's graving tool, and cut and etched the walls into magnificent and grotesque shapes.

Cave photography is not as difficult as one might imagine. Anyone who has taken flashlight pictures on the "outside", can, with a little experimenting, get good cave pictures. However, there are a few simple rules to be remembered. First among these is to note the direction of the air currents before setting off your flash (if one is used) because the smoke may gather in the top of the room or passage and spoil any other "shots" you may wish to take. Flashlight cartridges or flash sheets are better than the Photoflash lamps, as the latter are hard to carry over rough places without breaking.

As to cameras, a regular box camera with a single lens and fixed focus will give excellent results. The fixed focus is almost essential since there is not enough light to focus with ground glass in some caves and since it is very hard to judge distances underground. Open the camera to the largest stop and set it for time exposures. If Photoflash lamps are used it might be well to have a reflector (folding to save space), although it will seldom be necessary to set off more than two bulbs at once. Ordinarily the walls themselves will reflect quite a bit of light. I usually use panchromatic film, regardless of the kind of camera as sometimes the rocks may be quite colorful.





1-A Kodak; Pan. film;  
1, 12 ft. flash cartridge  
at F:7.9

*Looking straight up at a group of hibernating cave bats.  
There were more than 500 bats to the square foot in  
this colony*

Several years ago when I first became interested in cave photography, I copied from someone's article the following notes and have found them to give very good results:

"It is my opinion that the lens should be open wide, or for that matter, full stop for all cameras with apertures up to and including F 7.7. Two number 3 flash-sheets (this means Eastman) should be used for each exposure, one on each side of the camera. This gives an even illumination of the subject and the area included in the angle of view."

Often in small spaces, I have used only one flash-sheet and secured excellent results. This is also true of the flash cartridge. For screens not over 15 feet distant I use the "Actino" flash cartridge number 12. If the walls will give only a little reflection, use the larger cartridges, but do not use them much farther from the subject than the directions call for.

By burning a flash behind some rock or pillar in the picture, a sharp outline can be had. It is not necessary that both flashes be set off at once,

*Testing a radio set 365 ft. underground*



Box camera; Pan. film;  
1, #30 Actino flash  
cartridge; largest stop.



1-A Kodak; Pan. film;  
F:7.9; 2, 18 ft. flash  
cartridges set off sepa-  
rately



*"Pillared Palace", Wyandotte Cave*

as long as no one walks in front of the camera with a light. The camera, of course, should be set for a time exposure and the shutter stay open until after all the flashes have been set off. When using two or more flashes *not* set off simultaneously, be sure to caution anyone in the picture not to move even the slightest bit until all flashes have been lighted. (Also don't jar the camera.)

I am assuming that the reader will know how to take time exposures and will place the flash so that the spread of light from it will not enter the lens.

The shutter should not be opened until all is in readiness for the exposure and should be closed immediately after. To locate accurately objects or persons in the picture, have someone hold a flashlight, candle or lantern at each side of the grouping. If the light is seen in the finder, objects at that position will appear in the picture.

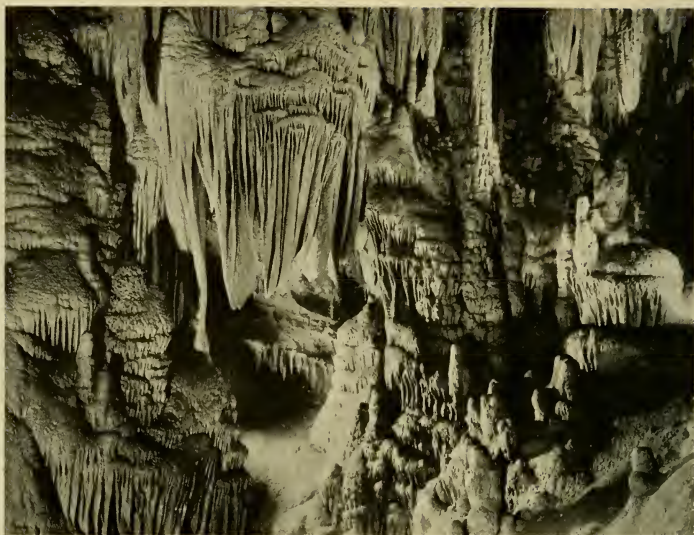
By using a piece of paper and twisting it with one end touching the fuse or tip of the flash, there will be sufficient time after igniting the improvised fuse for the photographer to take his own position in the party.

Anyone who is interested in photography knows it is best to favor overexposure and my above conclusions have been reached with that in mind.

Many "civilized" caves have been wired for electric lights. In these, provided you have permission, pictures can be taken with a floodlight or a Photoflash lamp used in a flashlight or one of the cave's electric sockets. In such a cave with a Speed Graphic (F 4.5 Tessar lens) one of my friends managed to get some nice pictures by using the electric lights and a 1000-watt floodlight as an added illumination. He used F 8 and exposed for about three minutes.

Magnesium ribbon is ideal with which to light large chambers, but do not use it as a substitute for flash-powder; it will show the most freakish bolts of lightning in your pictures that you ever imagined.

In my opinion the small or unexploited caves are best for photography, because in them you are entirely "on your own" and can act as



*Throne Room, Caverns of Luray, Va.*

*Courtesy Luray Caverns Corp.*

you please. If you can find one that is really unexplored—then you will be in your glory.

The hardest part of taking pictures in an unexplored or uncommercialized cavern is lugging the equipment into small holes and up steep hills, or over rough rocks. For this reason be certain to have your camera and other belongings strapped or tied securely to your body. I learned this lesson on an exploring trip in Wyandotte Cave, Indiana, when, with a lot of paraphernalia, I climbed a sheer, wet wall for fifty feet, then dropped everything in grabbing for a handhold!

In 1927 we tried taking moving pictures on quite an extensive exploring trip in a Kentucky cave. The whole thing was considerable of an experiment. Half minute flares were used for illumination, and quite a sum of the leader's money was burned up in short order, but not much was secured in the way of presentable films. As far as I know this was the first time cave movies had ever been tried. However, since that time, Mr. Russell T. Neville—who organized the Kentucky exploring trip—has taken hundreds of feet of successful moving pictures in caverns in this country.

All in all, any devotee of the camera will find many, many worthwhile subjects in most caves, for not all of the beauties of Nature are on top of the ground. The Mighty Builder of the Universe has dug huge domes, fashioned fairy grottos and enchanting beauty spots far underground, far from the heat of summer and the icy winds of winter, yet where any of us may see them if we will make the slight effort that is necessary.



Fig. 1

## Freak Photographs

Robert G. J. Desme'

**A**LL of us have, at some time or other, admired or laughed at the freak pictures published in magazines, and some of us know how produce such photographs; books have been published on this subject, and I do not pretend to have invented any new methods of producing trick pictures. However, some do not realize that new and different pictures can always be made with more and more pleasure; even the confirmed pictorialist might find relaxation in trying new results with old methods.

In this article, I intend to describe briefly three different ways of getting freak results, and give examples of what can be done with each of these.

These three methods are: 1—Double exposure. 2—Cutting out figures and rephotographing same in various positions. 3—Cutting out figures and pasting on some other appropriate photograph.

We will now consider "double exposure". In order to make a "double exposure", a duplicator is needed. The duplicator is nothing but a lens cap covering about two thirds of the lens (space covered does not need to be measured very accurately) and leaving the other third open. Such a duplicator can be made at home out of a few pieces of card-



Fig. 2



Fig. 3

board or it can be bought for around thirty cents in any big camera store. While the duplicator can be used as well with a moving-picture camera, we will concern ourselves only with still pictures in this article.

To take a double picture, the lens cap is put on the camera with the opening turned, say, to the right, one exposure is made, which takes in the part of the subject or landscape situated to the right of the photographer, the duplicator is revolved 180 degrees, so that the opening is now to the left, the other exposure is made; when the film is developed, it will be found that the two pictures merge perfectly, that there is no dividing line whatsoever between the first exposure and the second and that the two pictures are really one. Now, there are some precautions to be observed for complete success; the camera *must* be on a tripod or some other firm support; it must not be moved at all between the first and second exposures, exposures must be equal, and, most important, a certain duplicator on a certain camera will work only with a certain diaphragm opening. The correct opening must be found by trial and error. If there is a clear streak on the *negative*, then the diaphragm was too small (or the opening of the duplicator was too small). Vice-versa, if there is a black or dark area on the *negative*, then the opening of the diaphragm was too large (or the opening of the duplicator was too big). If you have a camera with a ground glass for focussing, it will be easy to see how it works, but it is quite possible to do double exposures on an ordinary roll-film camera, as a matter of fact all the samples accompanying this article were made on a  $2\frac{1}{4} \times 3\frac{1}{4}$  roll film camera.

Of course, double pictures can be made either horizontally or vertically, and following either the long or the short side of the plate or film.





Fig. 4

The exposure should be increased from three to five times normal to compensate for the fact that a good portion of the lens is covered by the duplicator.

Now, here are some examples of pictures obtained in the manner described above: Figures 1, 2, and 3, were all obtained with the duplicator. Figure one shows the simplest use of the trick. The camera, being set on its tripod and the opening of the duplicator turned to the left, a snap was taken of the subject who was standing somewhat to the left of the camera; then the duplicator opening was turned to the right the subject was also moved to the right, facing his former position and another snap was taken without turning the film to a new number. The result is a famous orator giving himself the razberries.

To make the picture more realistic, three friends were posted in the middle of the picture; it was necessary for them to remain absolutely motionless while both parts of the picture were being taken.

In figure 2, . . . well the poor fellow must have had a bad accident, or perhaps it was his operation, . . . anyhow, the top part of the picture was taken first, subject facing the camera, he was then turned





Fig. 5

around, being careful to put the right and left feet just where the left and right had been, and the lower part of the picture was taken after having turned the opening of the duplicator downward, of course.

Now, look at figure 3! Have you ever seen such a funny, jolly bunch of siamese triplets? There were actually four of them; the lower part of the picture was taken first; after marking with chalk the outline of their feet on the pavement, the whole group was moved six inches to the right so that their right feet were where their left feet had been before, and the top part of the picture was snapped. The picture was suitably trimmed when printing.

We come to the second kind of trick! Consider figures number 4 and 5. They were all made in the same manner, and it is very easy when you know how.

The subject pictures were first taken disregarding the background, and in different positions, sitting, standing, climbing over a chair, etc. The pictures were developed and printed or enlarged. The figures of each subject was carefully cut-out and this little cut-out was then actually hung from a piece of string (fig. 4), seated in a pitcher of milk (fig. 5), etc., and the whole was then photographed again.

The only difficulty is to make the cut-out of the right size. If too



Fig. 6

small, it will be difficult or impossible to cut it properly; if too big, it is then very difficult to prevent it from bending over one way or another and curling up like a dead leaf. Four inches is a good average height. One word of caution: Use scissors for cutting, a knife is good for certain little details and should then be used with the aid of a moderately powerful magnifying glass. After the figure is cut, sand-paper the edges, from the back of the print, very gently with a piece of fine sandpaper. When this is done, darken the edges with an ordinary pencil in order to prevent them from showing as white lines in the finished picture. If artificial lighting is used (Mazda, photo-flood) shadows appear which make the whole thing very realistic,

Now, we will take the third group of freaks; look at figure No. 6. This too was made with cut-outs, but the different people or figures were simply pasted on another photograph in the proper position.

In fig. 6, one print of the fellow eating was made, then another was made with the negative reversed, and from the latter was cut the head which was then pasted in the plate on the first print.

Now, you all know how it was done, go and do it yourself, and if the first try is not a success, do it again, you can't help getting the knack of it very soon, and you will be well repaid for your efforts by the fun you and your friends will get out of it.

# Some Remarks On Infra-Red Photography

J. G. F. Druce, M. Sc. (Lond.),

R. Nat Dr. (Prague), F. I. C.

THE introduction of infra-red photography a year or two ago marked a definite scientific advancement in the craft. It is, however, still almost in the experimental stage and not many professionals and still fewer amateurs have yet tried the special plates and films which are designed to yield photographic reproductions in the dark or in semi-darkness.

As in other branches of photography it is essential that the prescribed instructions should be followed explicitly if the desired results are to be attained. Thus in typical night photography with ordinary street lighting and using the special screen filter, 1/10 second exposure is ample and one second exposure produces gross over-exposure. Because of the short exposure, moving objects do not appear blurred and this is an achievement so far as night photography is concerned.

The features of infra-red plates may be judged from the accompanying illustrations. A comparison of pictures 1 and 2 shows that on the infra-red plate foliage and grass have printed out white. Architecture and clouds, on the other hand, have been brought out in better detail. The photograph on the panchromatic plate was obtained using a micro red filter No. 5 and this makes the comparison the more valuable.

Another direction in which infra-red photography has an undoubted future is that of long-distance photography. These plates can register scenery by penetrating haziness, mists and even dense fogs. The explanation of this is to be found in the fact that moisture scatters light rays



*Panchromatic film #5  
red filter*



*From an Infra-red  
Negative.*



*From an Infra-red negative, taken in the late evening*

but red rays are least affected of visible light and the infra-red rays are scarcely scattered at all.

Those who are accustomed to using panchromatic plates should have no difficulty in acquiring the technique of infra-red development. This is usually carried out in absolute darkness but a safe green light may be used. Adequate density should be attained within five minutes at average room temperature (60°F.) or correspondingly according to the time and temperature procedure.

It will be recalled that panchromatic plates give better sky effects than ordinary plates. This phenomenon is accentuated with the infra-red plates. In fact the most striking results may be obtained with distant objects like sky and mountains whilst a snow-like effect is produced in the rendering of a green foreground. Foliage and similar objects reflect infra-red rays far more than they do visible light and therefore they appear dark on the negative and correspondingly light on the positive. This, it would seem, is in some ways a defect and thus leaves the method still in its experimental stages.

The emulsions prepared with the new sensitiser dyes have attained extraordinarily high speeds which, curiously enough, are greater in artificial than in day-light (4,000 and 2,500 H.&D., respectively). The dyes that are used are new ones specially synthesised for use in penetrating the infra-red end of the spectrum. They are very complex cyanine compounds of the polymethine type. These organic compounds are, however, not the only substances which selectively transmit infra-red rays. A solution of iodine in chloroform has long been known to do this and certain manganese-iron oxide glasses show the same power of transmitting light from this region. They could thus be used for light filters and, it might be suggested, there is no reason why they should not be used for the actual lenses of special cameras designed for infra-red work.

# Our Monthly Competition

## Competition Prints To Go On Tour

Those prints which have received awards in these competitions from September 1933 to date have all been uniformly mounted in 16x20" and 14x18" sizes, and are now available to such organizations throughout the country as may care to view them. The comments and technical data which have appeared in this department will be pasted on the face of each mount, so that the show will have a unique educational value that is not usually present in exhibitions. For full details see Club Notes Dept. of this issue.

## Scoring for Club Trophy Cups

Mr. Charles T. Norton, of the Schenectady Photographic Society gains the distinction of being the second individual to earn 15 points for his club. As you know the rules specify that no one person may earn more than that number of points for a club, but it should be understood that there is nothing to prevent those who have earned 15 points from continuing in the competition. It simply means that such awards as they may take cannot be credited to their clubs score. Mr. Norton had previously earned 12 points so only three of the four points allotted to second place may be credited to his club.

The following individuals won points for their Clubs: Richard H. Mercer, and Don Kirby Oliver, for the California Camera Club; A. F. Burritt, for the Camera Club of Ottawa; Lionel Heymann, for the Fort Dearborn Camera Club; K. Furukawa, for the Japanese Camera Club; Julius Cindrich, for the Los Angeles Camera Club; Dr. Floyd De Eds, for the Photographic Society of San Francisco; Charles T. Norton, and W. J. McCune, for the Schenectady Photographic Society.

## Contributing Clubs

Alton (Ill.) Y.M.C.A. Camera Club  
California Camera Club  
Camera Club of Ottawa  
Cleveland Y.M.C.A. Camera Club  
Fort Dearborn Camera Club  
Fresno Camera Club

Golden Gate Leica Club  
Japanese Camera Club  
Los Angeles Camera Club  
Photographic Society of San Francisco  
Schenectady Photographic Society  
Telephone C.C. of Manhattan

## Standing of Clubs

### Large Clubs Advanced Class

Fort Dearborn Camera Club .....	17
Camera Club of Ottawa .....	16
Pictorial Photographers of America..	13
California Camera Club .....	6
Telephone C.C. of Manhattan .....	4
Los Angeles Camera Club .....	3
Photographic Society of S.F. ....	2
Utica Camera Club .....	1

### Small Club Advanced Class

Japanese Camera Club .....	16
----------------------------	----

### Large Clubs Amateur Class

Photographic Society of S.F. ....	33
Schenectady Photographic Society ..	20
California Camera Club .....	13
Golden Gate Leica Club .....	3

### Small Clubs Amateur Class

Cleveland Y.M.C.A. Camera Club ...	3
San Jose Camera Club .....	2

# Editorial

## To Correct a Misunderstanding About This Competition

A gentleman from Chicago very kindly writes to call our attention to the fact that a friend of his has somehow or other gained the impression that one must be a member of a camera club in order to be successful in the **Camera Craft** Monthly Competitions. He further states that he does not believe this to be true but would like an expression from us on this point.

We wish to say with all the emphasis at our command, and with complete sincerity, that absolutely no consideration is given to any factor other than the merits of the picture as these present themselves to our judges. One might belong to every camera club in the land and have received every photographic honor in the book, but

(Continued on Page 341)





"Aka Chan"

M. Shimoda

First Award—Advanced Class

■ We are sure that it will be many a day before we are again privileged to view such a lovely child study as Mr. Shimoda's "Aka-Chan". The lighting, pose, expression, and printing treatment are perfect throughout. Particularly noteworthy is the very effective use made of the hands. The chubby little arms and hands, caught in such an amusing and thoroughly baby-like attitude, are wonderfully expressive. From this picture we may learn the importance of meticulous attention to detail, the importance of exposing at just the right time, the importance of working tirelessly for a combination of factors that will bring out everything there is in the subject. It is an attitude which appreciates these facts, plus a sensitivity that permits the artist to know what is right, that spells success in picture making. All that has been said before and in better language. But, oddly enough, a picture such as this; so appealing that one fairly gasps with pleasure upon viewing it; often arouses in us a feeling of aggravation that there are not more such beautiful things made by photography. It seems that one reason for this fact is that too few photographers are sufficiently painstaking in their work. To make pictures such as this, one must aim high and work hard. We are sure that Mr. Shimoda has done just that.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$ " Graflex;  $6\frac{1}{2}$ " Goerz Dogmar; 1/100 sec. at F:4.5 on Agfa Plenachrome, by daylight; Bromoil transfer on Strathmore charcoal paper; bromide developed in M.Q.; Mortensen bleaching formula.

**Second Award  
Advanced Class**



**"Shaft House Quincy"**  
**Lionel Heymann**

able. It would be interesting to see what some of our "pure" photographers could do with this subject which appears eminently suitable to their approach.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$ " Graflex Series D;  $8\frac{1}{4}$ " Schneider Xenar;  $1/10$  sec. at F:4.5, in June, 7 P.M., on E.K. Portrait Pan., in A.B.C. Pyro; paper positive on P.M.C. #1 normal, paper negative on P.M.C. #2 normal; final print on Haloid Projecto D.D.

■ By a careful selection of viewpoint Mr. Heymann has worked out quite a successful composition based on the repetition of building forms. In the three uppermost building forms the sides facing the light have been carefully subdued in tone while the face of the one just behind and to the left of the logs is kept bright. This device establishes a strong center of interest in the brightest face. We believe that the tone of the wall behind the logs at the right hand edge of the print should also have been subdued in order to maintain the logic of the other manipulations and also to eliminate what is now a rather distracting bright spot due to its proximity to the edge of the print. We have no desire to detract from the undoubted merits of this picture, but if we are striving for perfection the splitting of hairs becomes a necessity. In this spirit we call attention to the fact that the dodging in of the sky in the upper right corner is a trifle abrupt, and a faint suggestion of tone in the bright areas of the sky seems advisable.

**Third Award  
Advanced Class**

■ The whole success of Mr. Cindrich's "Alias Mary-Lou" depends upon whether or not it is instantly evident to the observer that the picture is made and presented in the spirit of a masquerade and is not intended as a study of an actual negro type. In other words we should feel upon viewing this picture that here is a gay little bit of theatricality, and that nothing more serious is intended. If a sensitive observer does not get that reaction the picture has missed its mark for it is then called upon to carry an element of conviction—to be true to type—something it cannot do since the model is obviously made up for the occasion. If proof is required of the artist's intention this is furnished by the title. For our part we feel that the picture tells its story well without the title and consequently accomplishes its purpose quite successfully. It is often a good idea to test your reactions to a picture before looking at the title, and to then use the title as a check upon how well the idea has been conveyed.

Data:  $4 \times 5$ " Korona;  $8\frac{1}{2}$ " Graf Variable;  $1/5$  sec. at sharp F:8, on E.K. Portrait Pan., in Ortol; Agfa Brovira Antique in M.Q.



**"Alias—Mary—Lou"**  
**Julius Cindrich**

Fourth Award  
Advanced Class

■ Mr. Furukawa has carried out the idea of this picture very well and the puniness of man in the presence of this massive machinery is strongly emphasized. From the standpoint of composition we would like to see the whole subject lowered slightly in the picture space as the picture now seems a bit crowded at the top. Also it would be advisable to make the smoke stacks and smoke in the lower right more evident by giving them greater size by shooting at an angle which will bring them closer to the beam, or by adding height to the stack by retouching. In their present status their nature is not sufficiently evident, and they are too feeble to act as a support for the heavy masses above. There is always danger that a process may run away with its practitioners, the classic example of which is the horrible monstrosities which have been perpetrated in the name of the soft-focus lens. In this case we see no reason for the use of a paper negative, since it is desirable to maintain texture in the metal, and this process must result in some loss of detail.

Data:  $2\frac{1}{4} \times 3\frac{1}{4}$ " Contessa-Nettel; 1/25 sec. at F:9, with K2 filter, on E.K. N.C. film in M.Q.; paper negative; print on E.K. Opal T.



**"Strength"**  
K. Furukawa



**"Seven League Boots"**  
A. F. Burritt

Fifth Award  
Advanced Class

■ "Seven League Boots", by A. F. Burritt, is redolent of the tang of the outdoors on a clear cold day, and the simplicity of the composition is most commendable. We would like to see the head stand out a little more strongly from the background. It would help in this respect if the subject was wearing a cap of lighter shade. The tone of the sky seems a shade or two dark, especially when one considers the filter used, and leads one to suspect a slight degree of under exposure. However if the shot was made at a high altitude this tone might be a fairly correct rendering.

Data: Leica D; F:3.5 Elmar; 1/200 sec. at F:3.5, with Leica #2 filter, bright day; on Perutz standard film in Rodinal; print on Defender Veltura Q, in mfgs. formula.



"California Rancho"

First Award—Amateur Class

Richard H. Mercer

■ Mr. Mercer has accomplished a bit more than meets the eye in "California Rancho", for this very open type of landscape is rather difficult to work with, and requires a good deal of careful study if picture material is to be found. The picture gains rhythm and coherence from the S curve which is set up by the fact that the eye follows the road from the left up to the strong center of interest in the buildings, then swings to the left along the ravine and to the right again along the patch of blue sky. Do not fail to notice the advantage of photographing an even toned landscape, such as this, on a day when there are cloud shadows to break up what would otherwise be monotonous areas. The lower right hand corner of the print consists of part of a knoll and this area is much closer to the camera than any other part of the picture. Consequently it should be established in the tone scale as foreground by being deeper in tone. It is regrettable that the contour of this knoll, which begins at the right about one inch up from the bottom of the print and slopes off to the base at about the center, is practically lost against the middle ground. If this were carefully dodged in it would not only assist in enhancing aerial perspective but would result in a better distribution of masses as well.

Many of our leading workers are quite emphatic in stating that most landscapes should include some form of life. Mr. Walter P. Bruning, for instance, in laying down his requirements for the "grand landscape" in the June issue of this magazine says: "... and there must be life ..." In view of this fact it is interesting to speculate as to whether the introduction of life would help this picture and if so, how it could be accomplished. The composition will hardly permit the introduction of life in the foreground for this would almost surely set up a competing center of interest. It seems evident therefore that such life as we might choose to introduce would have to be fairly close to the buildings, either on the road or to the right of it, so that the two items might be seen as a unit. Because of the distance from the camera nothing smaller than a fair sized drove of cattle or sheep would serve our purpose. Such an introduction would probably have to be accomplished by cutting out the drove of animals, pasting them on the print and re-photographing the whole. If expertly done we believe this would add vitality to the picture, and would like to hear the opinions of others on this point.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$ " Graflex Series D; 18 cm. Schneider Xenar; landscape  $1/680$  sec. at F:3.5, clouds  $1/25$  sec. at F:11, with A filter; both negs. on E.K. S.S. Pan., in M.Q. Borax; print Defender Velour Black I, in Amidol.

**Second Award**  
**Amateur Class**

■ The textures and surface nuances of the old masonry in Mr. Norton's "Sunshine and Shadow" are interesting and well done, but one point is neglected which we believe should be almost always observed in pictures of this type. It is this. Let the door be slightly ajar, for by so doing the imagination is given room to move about—is given something to play with. As it stands this picture is somewhat forbidding because the eye is stopped by the closed door and then has no place to go. This fact also sets up a minor division of interest, between the doorway and the jug, which would not be present if the door were partly open, for it would then be sufficiently dominant.

Data: 9x12 cm. Voigtlander; 13.5 cm. Skopar; 1 sec. at F:32, on Agfa Plenachrome in D-76; paper negative on P.M.C. #2; print E. K. Vitava Opal D, Nelson Gold toned.



**"Sunshine and Shadow"**  
**Charles T. Norton**

**Third Award**  
**Amateur Class**





"Landscape"  
W. J. McCune

print, and keeping the eye in where it belongs. In discussing Mr. Mercer's print we mentioned that some form of life is generally held to be of value in a landscape. This picture lacks a strong center of interest and since the introduction of life would supply one it is particularly desirable in this case. A fisherman placed along the bank fairly well into the print would serve nicely.

Data: Voigtlander camera; Skopar lens; 1  
Plenachrome in D-76; Agfa Brovira Antique,

■ W. J. McCune presents a well executed picture in "Summer Landscape", whose only technical fault so far as we can see is a slight lack of water quality in the lake. Wet water, good solid rocks, etc. on down the list, are always to be desired. A body of water which passes beyond the bounds of the print, often causes difficulty by enticing the eye along its course, and on out of the picture. Mr. McCune has cleverly prevented this by including the bush at the right, which performs the very useful service of breaking up the body of water at the edge of the

his picture will not win an award one wit easier than would the same print submitted by an unknown photographer.

We now realize that the prominence given to club scoring in the competition department is probably responsible for this impression, so we stress again the fact that these competitions are still conducted on a basis of purely individual entries. The judges do not even know whether an entrant is a club member or not, nor are they interested in that fact, for they are not in the habit of judging prints by looking at the back of the mount.

The club features of this competition were added with the sole purpose of providing an additional element of interest in them. In every competition to date, some of the awards have gone to those having no club affiliations. We cite as examples of this fact, Mr. Shimoda in this month's competition, Norman Rhoads Garrett, and Ralph H. Anderson in June; Virna Haffer, and E. Ashford Sampson, in May; Ralph H. Anderson, K. E. Siegel, C. F. Adam, and J. W. Schuler, in April; Virna Haffer, Ray Atkeson, and Ralph Rex, in March.

We feel that the difficulty of winning in these competitions is not sufficiently appreciated, that the same is true regarding the honor of winning, and that because of this difficulty no one should feel discouraged if not immediately successful. The Pittsburgh Salon is generally considered to be the most exacting exhibition held in this country. In their last show 9.7% of the prints submitted were hung. In the July **Camera Craft** Competition, the volume of which is at low ebb for the year because of vacations, etc., 3.9% of the amateur prints received awards and 8.2% of the advanced group. These figures are not presented to discourage entrants. No one will ever get anywhere in photography by sending their prints to places where they are sure of receiving honors because no worthwhile competition is present.

It is regrettable that there will always be a few unhappy individuals who, rather than face the fact that their pictures are not up to standard, will make the most ridiculous charges of discrimination in order to excuse their own failure. At the same time it is a great joy to know that the vast majority of photographers are good sports, ready to win or lose with a smile, and much less interested in honors than in making better and better pictures. If you are approached by someone complaining of unfair treatment, give his work a good critical once-over. Almost invariably you will find it to be pretty poor stuff. Tell him to forget his grouch and take a good honest look at his own work.

This should not be taken to mean that the decision of any single jury should be taken as an infallible indication of the merits of a picture. No two juries will ever make exactly the same selections when a large number of pictures are involved. It is for this reason that the members of **Camera Craft** juries are changed each month.

This picture making business is a game—a great elevating game. The most valuable thing to be derived from the playing of any game is the cultivation of a fine spirit of sportsmanship. So far as this magazine may have any influence it desires to inculcate its readers with that spirit above all others.

#### An Apology to Mr. Altwater

We deeply regret the fact that Mr. Altwater's lovely picture "Where the Bee" appeared up-side-down in our June issue. Of course, the picture was correctly placed in our dummy, and under ordinary circumstances the printers mistake in turning the cut over would have been caught in correcting the page proofs. Unfortunately the printer chose this occasion to use some very coarse newsprint for proofing paper with the result that the picture appeared in proof as simply a black blob devoid of detail, and the mistake was not detected. We wish to particularly impress our readers with the fact that Mr. Altwater's picture is not to be classed with those modernistic things which look equally well in any position. The composition alone very definitely discloses the proper position for the print as any one can see for themselves by looking at the picture.

### Competition Contributors

#### ADVANCED CLASS

Edward Alenius  
Mitchell W. Allen  
F. G. Ashton

A. F. Burritt  
Julius Cindrich  
Fred E. Crum

Evelyn Curtis  
M. K. Curtis  
Christine B. Fletcher

(Continued on Page 353)

# Cinema Section

Edited by

William A. Palmer

## On Adding Special Effects To Finished Film

Perhaps one of the greatest differences between the technique of still photography and that of cinematography is that the cinematographer must think of all the factors necessary for a certain screen effect at the time when the exposures are made. The composition, lighting values, etc., must be correct at the time of photography and there is seldom any chance for changing and improving the effect by after treatment as in the case of still photography where dodging, touching up, and trimming are the rule.

Such effects as lap dissolves, double exposures, and fade-outs are almost always made in the camera by the amateur and when, after a scene has been shot and processed and it is found desirable to include a lap dissolve from that scene to another, there is nothing that can be done about it except to re-photograph the scenes if ordinary amateur technique is to be followed. In professional moving pictures, such a situation would cause no worry, for the lap dissolve would be made by one of the very proficient optical printers. As a matter of fact, since the talkies have come in, the professional prefers to add all his fades, lap dissolves, and wipes by the use of an optical printer. Let's see what the 16 mm worker might do to get the advantages of adding effects after the film has been processed.

As a rule amateur standard film is made by the reversal process and there is no negative. One therefore would consider

offhand that the printer would be of no help, since a print from the reversed positive would become a negative. If, however, the original positive is printed onto another film which is then reversed as was the original, we again have a positive, a procedure which is essentially that used in making the commercial duplicates of 16 mm film. This suggests a method which can be used for subsequent additions of cinema punctuation marks by the use of an ordinary contact printer such as the negative-positive process requires. The elaborate optical printers of Hollywood are not necessary for certain simple trick printing.

If we print a strip of processed cine film in contact with another unexposed positive film (in a remodeled projector or other printing machine, see Jan., 1934 Cinema Section) we then have a strip which may be processed by reversal to make an ordinary duplicate or it may be printed upon again from another scene which will give, when processed, the effect of a double exposure. Still again we might print the first time and then use the exposed film in the camera to photograph a title. The result when the film has been reversed—a title with a moving background. A little reflection will disclose that there are innumerable possibilities for super-imposing titles over scenes already processed, inserting fades and lap dissolves. (The rheostat of the printer

lamp can be dimmed to give a perfect fade) and doing other after treatments, if we can reverse the film after the exposures are made. We had better, then, con-

sider the home processing or reversing of positive film now and go to a more specific discussion of the actual trick printing in a later issue.

## The Reversal Process

The following procedure is for the processing of positive cine film and will not be found satisfactory for any negative stock. The positive film with its color blind emulsion is very good for titles and duplicating, but is not to be recommended for use as a film upon which to photograph regular scenes.

Since the length of film that the average amateur might want to reverse at any one time is rather short, a scene or two or a few titles, it is easy to devise methods of handling the film in the solutions. The "milk bottle" system is convenient for short test strips of three to six feet in length. This system is the use of milk bottles or similar glass bottles in which the solutions are put. The film is then merely stuffed down the neck of the bottles where it proceeds to coil up. During the processing the bottles are agitated to get the solution to work evenly and when the film is to be transferred from one solution to the next, it is carefully pulled out into a large basin of water for an intermediate washing. The film is guided, by its edges, between the fingers so that the emulsion does not become scratched. Whatever the apparatus used for handling the film in the reversal process, it must not have any metallic parts. Hard rubber, bakelite, glass, and wood coated with chemical paint are suitable materials which experience no difficulty in the solutions.

The process is completed in five steps as follows:

1. The film is first developed in the following solution:

Water (125° F)  $\frac{1}{2}$  gallon  
Elon 146 grains

Sodium Sulphite 14 ounces  
Hydroquinone 1 ounce, 146 grains  
Sodium Carbonate 7 ounces, 28 grains  
Potassium Bromide 1 ounce  
Water to make 1 gallon  
For use at 65° F, development time about 10 minutes.

The development must be very thorough, almost to the point of overdevelopment. The time when the development is complete can best be determined by inspection. Since the positive film is practically non-sensitive to red, the development can be done in a brilliant red light. When the image shows strongly through the back of the film and there is a very slight veil or fogging of the clear edges the development is complete.

2. The film is then rinsed for about a minute and transferred to the following bleach:

Stock solution:  
Water 32 ounces  
Potassium Bichromate 1 ounce, 340 grains

Concentrated sulphuric acid  $3\frac{1}{4}$  ounces.

**Important: pour the acid into the solution of Pot. Bichromate, not the solution into the acid.**

For use dilute 1 part stock solution to 10 parts water.

When the film has been in this bleaching bath about one minute the lights in the room should be turned on. The bleaching is continued until all of the black silver of the negative image has dissolved away. This will take about three minutes. The film then will appear as yellow undeveloped film with a very slight negative image in a slight orange tint.

3. The film is then washed very thoroughly to remove all traces of the bleaching solution. Fifteen minutes in running water or a half hour in several changes of water should be about right. At the end of the washing all of the orange tint will have disappeared and the film will have just the yellow silver bromide color. When viewed by transmitted light at this stage the weak positive image can be seen. This and all subsequent operations are carried on in the full light of the room.

4. Then the film is placed back in the original developer where the second development takes place. It will start to darken as the positive image develops almost immediately and the development should be complete in about two minutes. Inspection of the film by holding it up before a light will show when the positive image is developed to the proper density. At the end of this second development there will still be a slight veiling of the highlights or a slight milky appearance to the film.

5. The film is again rinsed and then

fixed in an ordinary acid hypo bath where it is cleared and assumes its final appearance. After a thorough washing to remove hypo the film is dried.

The above procedure does not seem very complicated on the face of it and it isn't if certain points are carefully observed. These are the factors that will make for successful reversal processing:

1. The exposure of the film must be heavy, enough to make a good dark negative image, and the development must be thorough in order to get an image which, at the end of development, will appear so very black as to seem ruined..

2. The bleaching solution must be washed from the film completely or else the developer will be ruined in the second development and the positive image will be streaked and uneven.

When properly used the solutions will keep very well if stored in stoppered glass containers. The developer will keep several weeks or until exhausted and the bleach will keep until its action is too slow and it takes on a greenish color.

## Vacations Ahead

With the myriad types of vacations that will be taken by the movie making public there will be opportunities for as many different types of vacation films. It is useless, therefore, to become too specific with regard to what to shoot to make a good picture. Most people will want to make just a cinematic record of the places visited or of the interesting activities; others may want to make something of a more creative nature, a photoplay or thoroughly planned continuity of some sort. Of service, then, may be a few general suggestions which are particularly applicable to the record type of film, that this type which is usually taken in a snapshot manner may become more interesting:

1. Bring out all the films of past vaca-

tions and screen them with a critical attitude. You will see many mistakes which you won't want to repeat.

2. When taking a picture of any particular subject be sure and run sufficient footage to properly present the story. An odd scene or two without any definite tie-up with the rest of the picture might just as well not be photographed.

3. Look for human interest and the unusual and portray them in detail through the use of close-ups. When traveling remember that the inhabitants, means of conveyance, and methods of living are of more cinematic interest than famous buildings. Animals, especially young ones, and children are always good subjects.

4. Don't forget the family or other members of your party. Include them in the

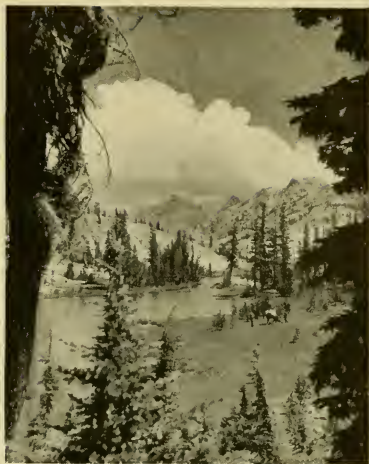


cinema record, but try to get them camera conscious so that they will not turn around and stare whenever the camera mechanism is heard. Caution them to continue whatever they are doing as if they were unaware of the camera's presence and train them to follow certain suggestions as to what to do while a scene is being made without disclosing that they are following directions of the camera man.

5. Look for unusual and interesting camera angles and try to include foreground objects such as the limbs of a tree when shooting long shots.

6. Above all things handle the camera properly. It should be held absolutely steady for practically all scenes. Panoramas, even when made slowly and carefully, are seldom effective and a picture of a building, which must be photographed by moving the camera up and down and then back and forth in the manner of garden watering, is worse than useless.

7. Take a filter along to use on scenic shots, especially those having clouds in the sky. A yellow 4 times filter is about the most useful one for general use. Don't use any filter for close-ups of people. (If you have a kit of a number of different types of filters and are acquainted with



*Frame long shots with  
foreground objects*

their use, take all of them along). In most cases one filter will be found adequate.

8. Help yourself in the job of titling the finished film by taking pictures of road signs and other placards which announce the places and scenes photographed.

## Correspondence

### A Purist's Reply to Mr. Mortensen

June 8, 1934

Dear Mr. Young:

It is impossible for me to take issue with Mr. Mortensen on the subject of photography, for our definitions of the medium are too widely divergent to permit a common ground of discussion. I believe that an artist must express his time and place within the limitations of his medium; that every medium has its limitations; and that

both in his work and in his writing, Mr. Mortensen has disregarded the exigencies of photography. However his article in your last issue is convincingly written, too convincingly, to let pass certain misconceptions Mr. Mortensen seems to have in regard to the purist, which might be misleading to someone who reads one side of the story only.

Mr. Mortensen says that the work of the purist lacks subjective interest. Either

he must be unobservant, or he is unfamiliar with the work. Photography is an objective medium, true enough, but the most objective photograph is capable of arousing a profound subjective reaction in the mind of the spectator. In the infancy of any medium, there are produced examples which may be considered experimental, and important only as indications of a maturity of expression to come. Doubtless many of us are guilty of presenting photographs of this type. However, certain recent tendencies are away from mere pattern making toward photographs rendered in a straight manner, the interpretation of which may be considered definitely subjective. Furthermore this interpretation would be in the light of our time and our conditions, not in an escape from them into a nebulous past. Mr. Mortensen has photographed a contemporary American disguised as Cesare Borgia (who after all lived in Renaissance Italy). Does this have any meaning for a twentieth-century American, or is it merely Mr. Mortensen's attempt to escape the problems which surround him?

Unfortunately, when the question of "staticism" in portraiture is considered, Mr. Mortensen takes Ansel Adams' remarks to represent the attitude of all the workers in the pure manner. Weston definitely disagrees with this point of view, and I am sure that John Paul Edwards and Imogen Cunningham also do not agree.

As to the subject of equipment: Ansel Adams is engaged in a variety of commercial jobs which necessitate the use of several cameras and lenses. The fact that he has mastered them is to his credit. Weston, on the other hand, uses one camera for portraiture and a view camera for all other work. Most of the men I know who work in pure photography use but one camera. It is far more usual to find "gadget hounds" among the users of miniature cameras. So much for the statement that we pay "lip-homage" only, to the doctrine of simplicity.

Mr. Mortensen objects to our complete rendering of detail, and says that our records of actuality are not artistic truth, be-

cause art "is things as they are experienced, not things as they are." The art of the purist is experienced. The experiencing of an emotional reaction to the subject is the impetus which causes him to make his photograph. The subject is "seen" however, within the confines of his objective medium, and he proceeds therefore, to make a photograph in a manner which best will convey to the spectator, the truth of the subject which has caused his emotional reaction. For after all the spectator has nothing from which to react but the photographic print.

The purist is selective, although Mr. Mortensen says that this is not true. He may select subject material, point of view, film, filter, lens, and printing paper. Selectivity differentiates the photograph of artistic intent from that of mere fact transcription. I do not mean to disregard the importance of subject material, for there is no doubt in my mind that the period of technical tours de force is over, and that now, by associative connotations in the mind of the person who sees the print, subject matter must also play its part in the composition.

Yours truly,  
Willard Van Dyke.

#### Advertisers Please Notice

Gentlemen:

I want to take this opportunity to congratulate you on your splendid magazine as I have enjoyed each and every issue since I joined the ranks of your subscribers about a year ago. I do not think I have missed reading one single advertisement. In fact, I just have to read it from cover to cover.

Sincerely yours  
R.W.H.

#### Competition Lay-out

Gentlemen,

If you are open to comments may I step forward with mine?

Your new lay-out for the contest photographs is great.

Very truly yours,  
I. D. Conklin.

# The Amateur and His Troubles

## The Angle of Lights and Its Effects on Exposure Milton M. Bitter

In photographic technique nothing is so important as correct exposure.

The degree to which exposure is effected by the angle at which the light falls upon the subject or scene has been most generally ignored by publishers of exposure tables or calculators, with but one or two exceptions.

The following diagram, with its explanations, may help many amateurs that are using exposure tables but not meters that give actual light tests.

Y—Camera.

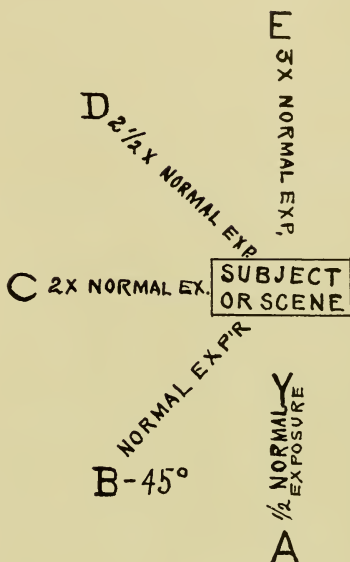
A—FLAT LIGHTING. Sun or light directly back of camera, i.e., flat lighting. Practically no shadows. Give one-half of normal exposure as indicated by your tables and very full development to "snap it up."

B—NORMAL LIGHTING. Sun or light at 45° to one side and back of camera. Exposure as indicated by tables or calculator. Normal development.

C—LIGHT ACROSS. Sun or light shining directly across subject. Give double normal exposure and somewhat shorter or softer development to avoid strong contrasts in the negative.

Although it is well to use a lens hood for all exposures, in C and D positions of the light it is quite essential to do so or otherwise protect the lens from direct light rays or upward reflections from the baseboard or metal track of the camera.

D—135° HEAD LIGHT. Sun or light in front of camera but at one side—angle about 135°. Some fine pictorial effects may be produced with sun in this position. Give two and a half times normal exposure for the particular subject, and a shortened or softer development unless almost all of the subject is in shadow or quite dark in color, in which case normal development may be given. Use lens hood.



Snow scenes photograph well with light in this position.

E—FRONT-AHEAD. Sun or light directly in front of camera and back of subject or scene, normal subjects, inland, i.e., buildings, landscape close-up views, etc. Give three times normal exposure, but don't forget your classification. Snow scenes, distant landscape, open sea, etc., are not normal subjects. Read your tables carefully. For normal subjects, particularly if dark in color, give full development inasmuch as the lighting is likely to be flat. Unless the sun is high up in the sky, exposure with sun ahead should not be attempted by amateurs that send their films to the we-do-the-rest man. Front-ahead light is very risky even for

expert workers, requires careful handling, and a lens shade is quite essential. If you use your hat, as some amateurs do, you can scarcely attempt a view of this kind without a tripod inasmuch you will need the utmost care to hold the hat in position without cutting off part of the view.

**OVERHEAD LIGHT.** Sun or light directly overhead but not in front of the camera. Give double exposure as for C and soft development. This is a very bad lighting, indeed, except for experts. Pictures of outdoor groups are frequently made by amateurs at high noon in direct overhead sunlight in midsummer. It is almost impossible to make satisfactory enlargements from such negatives. Heavy shadows under the eyes make them disappear almost entirely.

**PORTRAITURE.** The diagram of light positions applies equally well to exposures for indoor portraiture. But don't forget that when photographing close-up subjects with bellows extended beyond the infinity position **the stop values are decreased in proportion to the bellows extension**, thus necessitating increased exposure. For instance, when making a bust portrait the full size of the plate an aperture of F/4.5 should be rated somewhat less, according to the amount of bellows extension beyond the normal focal length. In copying or photographing a small object the same size, if you are using an eight-inch lens at F/8 with a bellows extension of sixteen inches (2x) the stop value becomes F/16, thus requiring four times the calculated exposure at F/8 as per diaphragm scale, F/16 would become F/32, etc.

The following formula will give the number of times the exposure should be increased. Divide the bellows extension by the focal length of the lens and square the result. In the example just given;  $16 \div 8 = 2$ ; 2 squared equals 4. Therefore four times normal should be given when the bellows extension is twice the focal length.

**EXPOSURE METERS.** The foregoing paragraphs apply only to printed exposure tables or calculators, not to the various meters of the extinction type or photoelectric cell meters. In using such meters

avoid the common error of pointing the meter too high. Suppose you are photographing an old ruin, a windmill or a house in an open field with no trees back of it to break into the sky. If you point the meter "directly at the subject" you may include too much of the sky in the view angle of the meter. It is safer in open landscape work to point low with the meter, or at least to the dark parts of the middle foreground if you wish to record the details there.

**COLOR VALUES.** The angle of light also affects the color values when two objects of the same color are photographed at the same time but with the light falling on the two objects at different angles. To illustrate: Since beginning this article (in February) I was called out to photograph a suburban estate after a heavy snow storm. It was a beautiful sight. My camera was set up almost directly facing the house (partial side view). The roof sloped away from the camera. The sun was almost directly back of the house shining into my lens. Of course I used a lens hood. The values in the snow on the lawn and in the shadows of the evergreens and other shrubbery were quite correct in my negative, but the snow on the sloping roof photographed so decidedly gray that I had to retouch the whole roof with a retouching pencil. Incidentally (don't tell anyone), I added more snow on the negative, in places where the wind had blown it off the trees, by using Velox Transparent Water Color Stamps (flesh color) and making a few sun proofs until I had the result I wished. These stamps are put up in a booklet of sheets of various colors and one stamp, with just a little bit of water, will go a long way. The flesh color is particularly good in holding back parts of a negative that print too dark. Practice on an old negative and apply the color lightly at first without having your brush too wet. Make tests with proof paper. Apply the color directly to the emulsion side of your negative without wetting it. It is better to build it up gradually than to apply too much. Only three or four drops of water with one-half of a stamp are required. Try it.

# Club Notes

## Forthcoming Exhibitions

- **South African Salon of Photography.** Address Secretary, South African Salon, P.O. Box 7024, Johannesburg, South Africa. Closing date July 15, 1934.
- **Eleventh Midland Salon of Photography.** Address Mr. T. Finch, Hon. Sec., Herbert Road, Nottingham, England. Entry fee 1 shilling per print, 5 shillings for 6 prints, plus return postage. Closing date, July 21, 1934.
- **43rd Annual Toronto Salon of Photography.** Address W. H. Hammond, Sec., Toronto Salon of Photography, 2 Gould St., Toronto, Ont., Canada. Limit 4 prints Pictorial Section, 5 prints Scientific Section. Entry fee \$1.00. Closing date August 1, 1934.
- **79th Annual Exhibition of the Royal Photographic Society.** Address, Secretary, Royal Photographic Society, 35 Russell Square, London, W. C. 1, England. Limit 4 prints, mount sizes 12"x16" or 16"x20". No entry fee; postage must be sent for return of prints. Closing date August 10, 1934.
- **The Victorian International Salon of Photography.** Address C. Stuart Tompkins, A.R.P.S. Sec., Junction, Camberwell, E.6, Melbourne, Victoria, Australia. Entry fee 5 shillings, limit four prints. Closing date Sept. 18, 1934. Packages for entry into Australia must not exceed 16"x16" or 4½ lbs.
- **International Exhibit of Professional Photography.** Address G. E. Newton, Secretary, Professional Photographers Association of Victoria, 243 Collins St., Melbourne, Victoria, Australia. Entry fee 5 shillings, remit as money order payable to G. E. Newton, Post Office, Melbourne. Entries accepted from professional photographers only, limit four prints. Closing date Sept. 18, 1934. Sizes as above.
- **North American Continental Salon of Pictorial Photography.** Address William Clayton Pryor, Salon Director, 60 Latta Ave., Columbus, Ohio. Closing date not yet announced.
- **45th Annual International Exhibition at Rotherham.** Address, E. George Alderman, Hon. Sec., Ruardean, Newton St., Rotherham, Eng. Closing date, Sept. 24th, 1934.
- **Third Annual Minneapolis Salon of Photography.** Address R. W. Burnet, Minneapolis Camera Club, 260- Euclid Place, Minneapolis, Minn. Entry fee \$1.00, limit 4 prints, closing date, Nov. 12, 1934.
- **Sixth Chicago International Photographic Salon.** Address, Salon Committee, Chicago Camera Club, 137 No. Wabash Ave., Chicago, Ill. Entry fee \$1.00, limit four prints, mount sizes 14"x18" and 16"x20", closing date Nov. 1, 1934.
- **8th International Christmas Salon of Photography.** Address Mr. Em. Borrenbergen, Dambruggestraat, 265, Antwerp, Belgium. Entry form and entry fee of 5 Belga should be sent to Mr. J. Van Dyck, Sec. of the Fotografische kring Iris, Ballaerstr. 69, Antwerp, Belgium, before Nov. 15, 1934. Closing date Nov. 15, 1934.

## Unique Traveling Salon. Camera Craft Competition Prints Offered for Club Exhibition

Those prints which have received awards in the **Camera Craft** Monthly Competitions from September 1933 to date have all been uniformly mounted on 16x20" and 14x18" mounts, and are now available to such organizations throughout the country as may care to view them.

The exhibitions will contain a number of unique educational features, that will make them of unusual value. The com-

ments made on each print when it appeared in our competition department will be pasted to the face of the mount, so that a brief analysis of its salient features will accompany each picture.

The full technical data on each print will also be given so that complete information regarding the material, processes, and equipment used in the production of each picture will be on hand, in case one



wants to know, "how it was done".

Also, the award received, the month of entry, the makers name, and the title of the print will appear on the face of the mount. Thus, the five awards made each month in each of the two classes may be hung together and observers will then have the opportunity of reviewing the work of the judges, as well as the pleasure of disagreeing with them in many an instance.

No expense is involved other than that of shipping the prints to their next destination. The prints will be sent to organizations in the order in which requests for them reach our office, although some consideration will be given to geographical distribution in order to keep carrying charges at a minimum.

We cannot say definitely at this time just how long each organization may be permitted to retain the prints for this will depend largely upon the number of requests received for them. The total of 110 prints will be divided into two groups of 55 prints each. Organizations may receive both sets if they so desire but not at the same time. Each group will contain prints from both the Advanced and Amateur divisions in equal numbers, and each group of monthly awards will be kept together.

The policy of exhibiting these prints throughout the country will be continued and a new group of sixty prints will be available every six months.

We do not hesitate to state that, with the possible exception of a few prints in the amateur class, all of these pictures are of salon caliber and well worth seeing.

Clubs who wish to receive these prints are asked to send in their requests as soon as possible, so that delay may be avoided.

The California Camera Club, of San Francisco, will exhibit each group for a two week period during July after which time they will be available to all comers.

#### Photographic Society of America

Dr. Max Thorek, F.R.P.S., president of the Photographic Society of America, has announced the appointment of Victor K. Overman of the Omaha Club as director of the 1934-35 print interchange; and Prof.

John A. Davis of the Miniature Camera Club of New York as director of an interchange for miniature camera work exclusively.

Any member club of the Photographic Society of America may participate in either or both of these interchanges. Interested clubs not now members of the P.S.A. can obtain complete information from the secretary.

B. H. Chatto  
1300 Milton Ave.  
Pittsburgh, Pa.

From all indications the Print Interchange will probably set a record this year not only in the number of competing clubs but also in the quality of the work submitted. Keener and more widespread competition bespeaks greatly increased interest in photography and in the activities of the society, and means that every club should exert themselves to the utmost to put their best foot forward. **Sophie L. Lauffer, F.R.P.S., Convalescing**

Through the kindness of Bill Alcock, F.R.P.S., we are happy to pass along the welcome news that Miss Sophie L. Lauffer, F.R.P.S. is rapidly recovering from a serious operation. Miss Lauffer is one of the most prominent of women pictorialists and since its inception has acted as associate editor of the very interesting Miniature Camera Magazine, published by the Miniature Camera Club of New York. Her many friends throughout the country will be greatly cheered by the good news.

#### Local Exhibitions

"683 Brockhurst", Oakland, Calif. During June: Nudes, by Edward Weston. During July: First Salon of Pure Photography. California Camera Club, 45 Polk St., San Francisco, Calif. During June: Photographs by Dorothea Lange. July 1 to 15th: A group of 55 prints from the **Camera Craft** Monthly Competitions. July 16th to 31st: A second group of 55 prints from the same source.

#### Salon Publicity

Salon officials who wish to learn how a first class publicity job for a show should be done are advised to consult Mr. D. M. Kastler, of the Third Detroit Salon of Pictorial Photography, and the Second

Detroit International Industrial Salon. Mr. Kastler has kindly sent us press clippings and the quantity is really astounding, and proved to us how very helpful a newspaper can be when it wants to. The Detroit Free Press played up the show from every possible angle with good newsy stories and plenty of specially made photographs, as well as reproductions of the pictures in the show.

Photographic activities as a whole are only very sketchily reported in the daily press, so it seems advisable to study ways and means of correcting this situation. Learn from Detroit, say we.

#### **Golden Gate Leica Club Exhibition**

The Golden Gate Leica Club has compiled a very interesting exhibit of miniature camera work consisting of 35 prints uniformly mounted on 14"x18" mounts, and comprising the best work of their membership for the past year. The show is now available to any club in the country that would like to see it. Write to Mr. Raymond B. Colled, 116 Natoma St., San Francisco, Calif. This exhibit contains some of the finest miniature work that we have had the pleasure of seeing—Don't miss it.

#### **New Club**

The Nashville Camera Club has recently come into being at Nashville, Tenn., with Mr. Leon Cantrell as President and Mr. Owen Wills, as Secretary. The club is just getting under way and will welcome correspondence from other clubs throughout the country. Address, Mr. Leon Cantrell, 938 Woodland St., Nashville, Tenn.

#### **New Club**

The Miniature Camera Society of the Twin Cities was recently organized and proposes to live up to its name by dividing its meetings between Minneapolis and St. Paul. Officers have not as yet been elected and the club is under the direction of a steering committee. This in no wise restricts its activities however for a monthly club competition is in full swing with the winning prints being published in The Gopher, publication of the Minneapolis Athletic Club. Address Mr. C. W. Nestler, 1022 Nicollet Ave., Minneapolis, Minn.

JULY, 1934

exposition.

The first award will be a Weston Exposure Meter donated by the Weston Electrical Instrument Corporation.

All entries must be in the hands of the Club secretary, W. W. Macomber, Room 11-117, Merchandise Mart, Chicago, Illinois, by November 15, 1934.

Entry blanks and copies of the Rules and Regulations may also be obtained from the secretary.

The length of the films have been limited to 400 feet 16 M.M. or 200 feet 8 M.M. and they will be judged on

1. Exposure, 2. Composition, 3. Continuity, 4. Titles, 5. Interest.

### **Chicago Camera Club Wins Warren H. Monk Trophy**

Several months ago an invitation was extended to twelve photographic clubs to participate in the First Invitational Club Exhibit of Pictorial Photography to be conducted under the auspices of the Indianapolis Camera Club of Indianapolis, Indiana. The exhibit to be held at the John Herron Art Institute during the month of May. Each club invited was requested to submit sixteen prints selected to be representative of the best efforts of its members.

The clubs participating in the exhibit were:

The Boston Camera Club

Chicago Camera Club gratefully acknowledge the courtesy of having been invited by the Indianapolis Camera Club to participate in this their First Invitational Club Exhibit of Pictorial photography and at the same time to extend them good wishes for their continued success. Those who served as the jury of award are sincerely extended the appreciation and thanks of the club in having awarded them the Warren H. Monk Trophy.

### **New Miniature Club Forming in Oakland**

The organization meeting of a new miniature camera club, name as yet undecided will be held Tuesday evening, June 26th, at 8:00 P. M., at Room 215, 1404 Franklin St., Oakland, Calif. The users of any camera whose maximum negative dimension does not exceed  $2\frac{1}{2}$ " are eligible for membership. Sponsors assure us that dues will be kept at a minimum. Any one interested who is not able to attend the meeting should communicate with Mr. Edward H. Towler, 813 Central Bank Bldg., Oakland, Calif.

### **Pictorial Photographers of Victoria**

The Pictorial Photographers of Victoria have just completed their first year as an organized camera club, and at the last meeting, held on June 1st, the following were elected as officers for the ensuing year: President, R. Muirhead; Vice-President, J. K. Hodges; and Secretary-Treasurer, R. L. Colby.

The retiring president, Mr. J. Grant, gave a talk on the Club's activities for the past year, which consisted of several outings, four private exhibitions, and culminated in a showing of the first Annual Canadian Salon of Photography through the kind cooperation of the Hamilton Camera Club, of Hamilton, Ontario.

Preparations are being made to ensure the Club's display at the Provincial Exhibition held each Fall.

Headquarters of the Society have now definitely been installed in the Empress Hotel, Victoria, B. C., Canada.

### **Marshall & Field Contest Winners**

A striking view of the Chicago River by Louis Geyler, 175 West Jackson boulevard (Chicago) was the winner of the

grand prize in the first annual photographic contest for amateur photographers staged by the camera section of Marshall Field & Company. The prize winning photograph, together with others which won prizes and honorable mention in the contest, will be exhibited in the Crystal Room on the seventh floor at Field's beginning Monday, (June 18).

Other prize winners in the various classifications were Mrs. Elsie M. Keyser, San Francisco; Robert Sacks and Charles Lindsay, Chicago; James Emmett, Hinsdale, Ill.; Arthur Pyfer and Paul O. Schmidt, Evanston, Ill.; Mildred M. Deeton, Muns-

ing, Mich.; Dorothy V. Lee, Oak Park, Ill.; Frank Fenner and Jack Cantrell, Chicago; William T. Lyon, Harvey, Ill.; Harry H. Larson and L. H. Copeland of Chicago.

Judges were Dr. George Poundstone, president of the Chicago Camera Club; H. K. Shigeta, of the Ft. Dearborn Camera Club; Miss Eleanor Jewett, Art Editor, Chicago Tribune; H. M. Becker of Marshall Field & Company and Leo Steffen, the photographer.

Approximately 1000 pictures were entered in the contest. One hundred and fifty were awarded honorable mention.

## Competition Contributors

### ADVANCED CLASS

(Continued from page 341)

K. Furukawa  
Norman Rhoads Garret, A.R.P.S.  
F. R. Getsinger  
Virna Haffer  
Irving Haines

Archie Hardy  
Lionel Heymann  
G. Elwood Hoover  
Stanley Jordan  
Jack Keller

H. F. Kells  
Joseph Evans Rogers  
Midori Shimoda  
Dr. Max Thorek, F.R.P.S.  
W. J. Turnbull

### AMATEUR CLASS

Ralph H. Anderson  
W. F. C. Anderson  
A. V. Astone  
Dr. H. C. Atwood  
J. S. Beilby  
H. C. Benedict  
William R. Bland  
F. H. Boyd  
Roland Calder  
Bland H. Casebolt  
Harry Chamberlain  
K. H. Choy  
R. Brett Collard  
J. Daniels  
Dr. Floyd De Eds  
D. G. Divekar  
Louis Dorman

O. M. Erpenstein  
W. A. Ford  
Mortimer Friedman  
Mitsutaro Fuku  
Robert K. Grand  
Charles Groff  
Johanna E. Heim  
Walter J. Herz  
Edward E. Hutching  
D. E. Jack  
Arthur Johnson  
James A. Kelly  
Ernest W. Kestner  
Ray Kuhn  
Charles E. Lamphere  
J. W. MacBride

W. J. McCune  
Richard H. Mercer  
L. E. Molander  
F. A. Moore  
Hall Elof Norine  
Charles T. Norton  
C. L. O'Brian  
Don Kirby Oliver  
R. W. Olson  
Frank X. Reilly  
F. L. Rogers  
Alex Silverberg  
John S. Simm, Jr.  
H. E. Skoff-Walsh  
G. M. Steed  
Wm. E. Wing  
A. Zachary

## Selling Points - Points to Sell

John P. Lyons

Several years ago I was called into a Mid-Western State to work up an advertising campaign for a manufacturer. This man had completed a mechanical invention several months previous. He had

spent nothing on advertising and yet was receiving inquiries from all corners of the world. He couldn't understand the source. It developed that he had had the local commercial photographer make a few

photos of his machine. And in interviewing the photographer I discovered he had sold prints of this interesting machine to a number of mechanical magazines. And the mystery was solved.

BUT—the photographer had received \$5.00 from the inventor for his work—and some \$140.00 from the magazines for copies of his photos. Good pay for a few hours of work. The magazines ran the photos, and readers who inquired were given the name of the inventor.

I know another photographer who makes a handsome living specializing on gathering material for the mechanical magazines. This man studies all patent reports as issued. He watches the advertisements of persons "seeking capital to market new inventions." He writes the inventor explaining that he can secure much favorable publicity for the invention, if he has the facts or a photo of the invention. Upon receipt of the information, he submits writeups and suitable illustration to the various magazines which might be interested. In addition to the mechanical magazines, there are several hundred trade papers, always interested and willing to pay for news of any invention affecting the manufacturing procedure of their particular industry. But—let us review the mechanical magazines.

Popular Mechanics, 200 E. Ontario Street, Chicago, Ill., is at all times a wide-open market for photos with short caption, of new things in the fields of mechanics, invention and discovery. Action, human-interest views of scientific developments, inventions, new things, new machinery, queer or exciting engineering feats, hazardous work. In fact, everything but nature freaks, historical, or "largest" and "smallest". Pay \$3.00 up to the limit for photos, on acceptance.

Modern Mechanics and Inventions, 529 S. Seventh Street, Minneapolis, Minn., ask for "good eye appeal" in their photos. In addition to mechanical material, use much material on home-made household devices, and equipment which show the construction of some useful article readers might like to build. They prefer 8x10 prints though smaller sizes are acceptable if they are sharp and distinct. \$3.00 and

upward for photos, 2 cents per word for text.

Popular Science Monthly, 381 Fourth Avenue, New York, wants photos with short captions on new inventions, mechanical devices and machinery. Prefer action views, or with people in the view. Curiosity pictures such as strange races, nature phenomena, freak accidents, etc. They feature "How-to-make" ideas, with views of home workshops, tools, benches, home craft products and new ideas in labor or time-saving helps for the home and automobile. Pay from 1 cent to 10 cents per word, \$3.00 and up per photo.

Illustrated Mechanics, 1411 Wyandotte Street, Kansas City, Mo., appeals to the reader in the small town and rural communities. Use practical mechanics and popular homecraft. Photographs with 500 to 1500 words of text on homecraft articles, home wood-working equipment, metalcraft, "how-to-make" diagrams, in fact anything and everything of interest to the homecraftsman.

Home Craftsman, devoted entirely to home-craft and mostly staff-made, have just moved from Plainfield, N. J., to 63 Park Row, New York.

Model Craftsman, 330 W. 42nd Street, New York, appeals to the craftsman, wood and metal workers, model builders, using single photos as well as illustrated articles on modernistic furniture, boat models, railroad models, cabinet work, etc. Pay 1 cent per word, \$2.00 per photo or publication.

Popular Homecraft, 737 N. Michigan Avenue, Chicago, is generally overstocked but can be tempted to buy photos of exceptional homecraft workshops, things made in it with description of materials used and other data.

Shipmodeler, 55 Middagh Street, Brooklyn Heights, N. J., is restricted to ship models and use many fine photos of such. This magazine states: "Now and again we buy a good-looking and interesting photo of a ship, any caption should be strictly factual."

Universal Model Airplane News, 551 Fifth Avenue, New York, is the authority on model airplanes. Articles should be short, not more than 2500 words, any-



thing pertaining to model aeronautics, plans with instructions to build, scientific treatises. \$1.00 to \$3.00 for photos, 1 cent per word, and \$5.00 for drawings which should be 7x10 inches.

Everyday Science and Mechanics, 100 Park Place, New York. The bulk of this magazine is constructional articles, wood and metal working, hobbies, etc. The theme of the magazine is science applied as electricity or mechanics. The rate of 1 cent per word and \$3.00 per photo was at one time on acceptance. The editor now states payment is on publication but contributors report in some cases, payment is long after publication.

Scientific American, 24 West 40th Street, New York, stresses scientific, technical articles, popularly presented. Photos with accompanying text, 200 to 3500 words, new patents of scientific learning. Latest advances in pure and applied science, interesting developments throughout the world,

with strong industrial appeal. No handy kinks or "how-to-build" articles. Pay 1 cent per word, and \$3.00 to \$5.00 per photo, on acceptance.

In previous articles I have insisted that the mechanical group is the easiest market to make. Fine for the beginner, yet paying rates that should command the attention of the professional. All about you are mechanical oddities, happenings, ingenious contraptions and gadgets worked out by your neighbors and townsmen. Go to the library and study these magazines, if you cannot secure copies. Note what is being used—try to catch the slant as reflected in what is being used. I'm sure that if you do this, and pay attention to the mechanical things you meet up with—you will gather many photographs that can be sold to this easy, not-too-exacting, well paying market.

## Notes and Comments

### Hirsch & Kaye

The up-and-coming firm of Hirsch & Kaye are constantly on the lookout for new and useful items in the photographic field. If you want to keep in touch with things, form the habit of dropping into the store and saying "What's new" to Messrs. Fazackerly, Ward, or Reif, behind the counter. If its movie matters that interest you, any of the above plus the firms movie expert, Norman Siller, will be at your service.

### Photographic Courses

Beginning Sept. 10th, 1934, the Rochester Athenæum and Mechanics Institute, Rochester, N. Y., announce a two year co-operative course in Photographic Technology. In addition to the above mentioned course the Institute is also offering courses in, Applied Art, Chemistry, Mechanics, Electricity, Construction and Supervision, Retailing and Food Administration. A free descriptive catalogue will be sent to any interested party.

### Distinguished Student

The Rabinovitch, Studio School of Art Photography, has recently graduated a most distinguished student in the person of Grand Duchess Marie, of Imperial Russia. The Grand Duchess has won distinction in her own right by writing two popular books, numerous magazine articles and short stories, and as a designer of dresses. She now proposes to do commercial art.

The Rabinovitch School has been in existence for 14 years, and issues a very interesting prospectus describing its activities. Write to Rabinovitch, 142 West 57th St., New York, N. Y., and ask for booklet K.

### Color Photography

The following communication from Rudolf Seiden, Landstrasser Gurtel 9/10, Vienna III, Austria, appears in the May 20th, issue of Industrial and Engineering Chemistry. As yet we have no further

information, but are reproducing the extract here for those who are anxious to keep in touch with all developments in this field.

"An important contribution to color photography emanates from the Viennese laboratory of the chemist Erna Raseck and her two collaborators, engineers Oberer and Strommer. The color films may be produced with the equipment now at hand for manufacturing ordinary film, and present-day cameras require only slight modifications to render them available for the use of the new films. The production costs are practically the same as those for making ordinary "black and white" films. Four main patents are pending. These indicate that the color film process requires a chemicotechnical treatment during the exposure, as well as when the negative is printed. Experimental manufacture of these color films indicates that the most delicate color values may be reproduced. In contrast with the so-called Farbenras-terfilmen, as many copies as are desired may be made from one negative. Furthermore, the new Raseck films do not require repeated exposure, but may be handled in the same way as are uncolored films. The discovery is being investigated by the Kodak and Pathe companies."

#### **Minaco Projector-Enlarger**

This instrument may be used either for the enlarging of miniature negatives from 16 mm. up to  $2\frac{1}{4} \times 2\frac{1}{4}$ " or for the projection of positives for viewing on a screen. The machine is of strong construction and exceptionally efficient and convenient in use. The revolving film aperture and the horizontal movement of the housing are especially helpful in framing and composing the picture during enlarging. Either Leica or Contax lenses may be used. Write to Miniature Camera Accessories Co., 712 Townsend St., Chicago, Ill., for a free descriptive catalogue.

#### **Bargains**

Anyone looking for good buys in second-hand equipment of all kinds is advised to communicate with the National Camera Exchange, 5 So. 5th St., Minneapolis, Minn. This firm has a long record

of honest courteous dealings with each and every customer. Your enquiry will be given prompt attention.

#### **Henry Herbert**

The many friends and business acquaintances of Henry Herbert formerly of Herbert & Huesgen, will be pleased to know that he is now conducting his own establishment under the above name at 483 Fifth Ave., New York, N. Y. Among other things the firm of Henry Herbert is American Agents for the Ihagee line of cameras, enlargers, etc. One of the ace items in this line is the excellent little Ihagee Exakta camera. This is a reflecting type of camera with full visual focusing and focal plane shutter, but its small size gives it all of the advantages of a miniature instrument. It is equipped with an F:2.8 Zeiss Tessar and makes 8 pictures, size  $1\frac{5}{8} \times 2\frac{1}{2}$ " on #127 V.P. film. See it at your dealers or write for full details.

#### **Passing of Richard Salzgeber**

With deep regret we report the death of Mr. Richard Salzgeber, President of the Hammer Dry Plate Co., on May 13, 1934, after a short illness, at the age of 73. Mr. Salzgeber had been General Manager and secretary of the firm from 1893, and took over the duties of President last January upon the death of Mr. Henry W. Hammer.

The continued excellence of the firm's products is assured by the fact that active control and direction remains within the two families. At a meeting of the Board of Directors, held May 21st, Mr. Wm. B. (Bill) Hammer was elected President, and Mr. Richard W. Salzgeber, Secretary and Treasurer.

#### **Lugene, Inc., Agents for Edwal**

We are pleased to report that the firm of Lugene, Inc., 600 Madison Ave., New York, N. Y., have recently been appointed Eastern Agents for Edwal Diamine-P and Glycin. The Edwal Laboratories have a national reputation as manufacturers of high grade chemical products, while Lugene, Inc., is famous as the sponsors of the first Miniature Camera Salon. The

Second Annual Miniature Camera Salon was recently held in New York, and the exhibition will, no doubt, shortly be touring the country.

### **George Murphy, Inc., Issues New General Catalogue**

A general catalogue such as this, covering as it does all photographic merchandise, is of great help to all photographers, as a source of information, not only as to prices, but also as to what goods are available on the market. Write to George Murphy, Inc., 57 East 9th St., New York, N. Y. today for your copy. A large edition has been printed but there will no doubt be a very heavy demand.

### **Courses in Coloring Photographs**

Mr. Avenir LeHeart, P. O. Box 1011, Los Angeles, Calif., has prepared a very illuminating prospectus describing the several courses in coloring and painting photographs and miniatures, both on paper and on canvas. A very helpful feature of the pamphlet is a frank and instructive discussion of the possible markets for color work, which should be of considerable assistance to any one interested in this field. Free on request—write today.

### **Collotype Instruction**

Any one interested in learning the Collotype process is advised to communicate with the Pacific Phototype Co., 613A-19th St., Corvallis, Ore. This company is offering complete, illustrated instructions for \$1.00.

### **Free Booklet on Fine Grain**

The Edwal Laboratories, 3420 Indiana Ave., Chicago, Ill., have recently issued a helpful little booklet whose contents we are happy to be able to endorse without reservation. The causes of "grain" are outlined and the principal methods of combating "grain" are discussed. The recommended formula is the Sease #3 as advocated by Mr. Casebolt in the November 1933 and Jan. 1934 issues of this magazine. The booklet may be obtained from your dealer or direct from the above address.

### **Nikor Developing Tanks**

The Nikor Developing Tanks are of all stainless steel construction and may be used for either physical or chemical devel-

opment without fear of any reaction of the metal with the processing solutions. The brightness of the stainless steel is an advantage in cleaning the tank for any deposit is easily seen on such a surface. The tanks for 35 mm. or roll film are provided with a holder for loading which makes it easy to load the film without touching it with the hands and consequently finger marks are minimized.

Once the film has been placed in the tank solutions may be poured either in or out in full light, so it is not necessary to carry out the developing process in darkness.

Roll film tanks are offered in sizes to take numbers 127, 120, 117, and 35 mm. film, the last named handling a strip 5 ft. in length. Tanks of different design are also available for the development of cut film, film packs, and plates. See these tanks at your dealers or write to Burleigh Brooks, 127 W. 42nd St., New York, N.Y., for full information.

### **Hollywood Camera Exchange**

The above firm carries a very complete line of both new and used equipment in both the professional and amateur, motion picture and "still" fields.

An interesting and useful item of their own manufacture is the new H.C.E. Combination Lens-Shade and Filter Holder, which is made to order to fit any size lens, at a very reasonable price. Write to the Hollywood Camera Exchange, 1600 North Cahuenga Blvd., Hollywood, Calif., for an instructive circular describing this article and the advantages of its use, and while you are about it ask for a copy of their bargain catalogue.

### **Voigtlander Exposure Calculator**

Willoughby's, 110 W. 32nd St., New York, N. Y. offer the readers of this magazine the opportunity to obtain a Voigtlander Exposure Calculator, for only 15c (to cover carrying charges) while the supply lasts. The calculator is of the card type in which the conditions of the scene are adjusted for by sliding a calibrated scale within an envelope. The calculator may be used under any conditions and is very simple to operate. Write promptly or the supply will be exhausted.

# Classified Advertisements

This is purely a convenience department for the reader and for that purpose offers Classified Advertisements at cost. 4 cents a word; minimum \$1.00 each insertion. Dealer merchandising ads must be placed in display space at 30 cents per agate line, 10 agate lines minimum. Position Wanted ads, one insertion free. Copy for this department must reach us on or before the 15th and in every case be prepaid.

Items advertised in these columns may be purchased C.O.D. subject to examination and C.O.D. subject to ten days free trial if sent by express. If in doubt, safeguard yourself.

## OUTFITS FOR SALE

◆Leica Enlarger with f:3.5 lens and glass easel. Good condition, almost new, \$32.50. H. T., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆Bargain Complete Leica outfit, C camera with f:2.5 lens; range finder; f:490 mm. telephoto lens; enlarger with f:3.5 lens; easel; case; cable release; universal view finder; sunshade — \$150.00. Cost \$275.00. M. H., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆Graf Variable Anastigmat, Series A, No. 67, 14 inch, with complete sharpness at f:3.8, adjustable to any degree of diffusion without flare. Condition same as new. Regular price \$264.00. Offer for \$160.00 prepaid. Lloyd, 1008 S. W. Sixth Ave., Portland, Ore.

◆Kodak Pupille with F:2 lens, never been used, with case and regular equipment, also sunshade, and slightly used Correx tank, all for \$60.00. Hale Way, 1510 Rio Hondo Ave., Rosemead, Calif., near Los Angeles.

◆ $3\frac{1}{4} \times 4\frac{1}{4}$  R. B. Graflex; film pack adapter, roll holder; f:4.5 Kodak Anastigmat 6 $\frac{1}{2}$ ; A-1 condition. Z. Z. c/o Camera Craft, 703 Market St., Calif., or phone in San Francisco, Market 7896.

◆ $3\frac{1}{4} \times 4\frac{1}{4}$  Voightlander Avus, Skopar f:4.5, compur shutter, \$27.50. New f:4.5, 135 mm. Elmar lens, \$60.00. New Copying arm for Leica enlarger \$5.50. Vollenda camera, \$22.50. M. H., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆Bargain.  $2\frac{1}{4} \times 2\frac{1}{4}$  Rolleiflex, Carl Zeiss f:4.5, Compur, leather case, new condition, cost \$75.00 sell \$40.00. Otis Gardner, 237 Custom House, Denver, Colo.

◆ $2\frac{1}{4} \times 3\frac{1}{4}$  Contessa-Nettel, focal plane shutter, Zeiss f:4.5 lens, fitted for Graflex plate or film magazine, \$15.00. Above plus light wood tripod and Dallan tank, \$20.00. Castle, 1109 Lytton Bldg., Chicago, Ill.

## 16MM AMATEURS ATTENTION

Two dimes bring 3 usable, animated "The End" titles and literature. BEN B. DOTY, 3386 Virginia Ave., Lynwood, Calif.

## LEICA CAMERAS WANTED

For trade-ins on the new F Model with Summar F2 lens. Write in for our liberal trade-in allowances.

MINIATURE CAMERA SHOP  
1600 Post St., San Francisco

## POSITIONS WANTED

◆Wanted, position by a young man in the Puget Sound Area or British Columbia, 12 years experience in all around work including Kodak Finishing. Will start for a very small salary. Can give references that I am a careful worker. Will accept a position for the summer or part time. Homer Sylvester Wyatt, 2514 - 3rd Ave., Seattle, Wash.

## OUTFITS WANTED

◆Wanted, motion picture printer 16 mm. Need not be new. Privilege of examination. F. L. Goltz, 266 Liberty St., Winona, Minn.

## LENSES FOR SALE

◆Dallmeyer f:4 Patent Portrait Series 2A. Focal length 13 $\frac{1}{2}$ ". Ideal for large heads. Excellent condition. List \$160.00. Bargain at \$70.00. Wesley Swadley, 233 Post St., San Francisco, Calif.

## FOR SALE AND EXCHANGE

◆Trade excellent 4x5 Auto Graflex; 9 $\frac{1}{2}$ " B&L Tessar; three film holders; adapter, K2 filter, case. When new \$268.00. Want precision camera outfit 4x6 with f:3.5 lens or 5x7 with f:4.5 lens. Write complete details. Paul Thomas, Box 756, Manila, P. I.

## 12 LIGHTINGS \$2.00

Detailed directions for making twelve beautiful portrait lightings with average equipment, from my \$30.00 Course in Lighting, mailed with twelve floor-plan diagrams for \$2.00.

Beattie, 913 N. Sycamore Ave., Hollywood, Calif.

GOOD ALLOWANCE for Firearms, Microscopes, Binoculars, and Celestial Telescopes, on any photographic equipment, motion picture or still, and Bausch & Lomb Spotting Scopes, and Binoculars.

NATIONAL CAMERA EXCHANGE, 5 South Fifth Street, Minneapolis, Minn.

## CINEX 16 MM. FILM

Regular speed — 100 ft. \$3.25; 50 ft. \$1.75. Nonhalation supersensitive Panchromatic for night shots, interiors and exteriors 100 ft. \$4.50. Processing in San Francisco included. Send for Sample. CINEX FILM LAB., 221 Golden Gate Avenue, San Francisco.

Please mention Camera Craft when corresponding with Advertisers



# C A M E R A



"King Henry VIII"

William Mortensen



# CRAFT

REG. U. S. PAT. OFFICE

**AUGUST 1934**  
**VOL. XLI Number 8**  
**SAN FRANCISCO**  
**• CALIFORNIA •**  
**PRICE 20c**



## In This Issue

**PICTORIALISM FOR MINICAMS . William Mortensen**  
**A JOB OF PHOTOMONTAGE . . . . Albert Jourdan**  
**BEGINNINGS OF COMPOSITION . . Thomas A. Wilson**



Beginning with the October, 1934 Issue  
(September 25th, 1934)

*The subscription price of*

# CAMERA CRAFT

*will be*

**\$2.50 a year - 25 cents a copy**  
**\$3.00 Foreign - \$3.10 Canada**

Mounting costs of production and the desire to give our readers the best, compel us to adopt this new schedule.



Subscriptions up to September 25th, 1934, will be accepted at the present rate:

*One year*

**\$2.00 U. S.**  
**2.50 Foreign**  
**2.60 Canada**

*Two years*

**\$3.00 U. S.**  
**4.00 Foreign**  
**4.20 Canada**



*At your dealers or*

**CAMERA CRAFT PUBLISHING COMPANY**

703 Market Street

San Francisco, California



*A warm welcome awaits you . . .*

● To you who will attend the "Century of Progress" this year, the Agfa Plenachrome Brothers extend a cordial invitation to visit the Agfa Ansco Exhibit, where a warm welcome awaits you.

To everyone who is interested in obtaining the finest possible photographic results, the entire family of Agfa materials extend the wish that you number yourself among their many friends—confident that the relationship will be a long and pleasant one.

Whether your requirements include cameras, chemicals, film, or paper, Agfa Ansco stands ready to serve you, in a sincere and friendly way, with products of outstanding quality.



**AGFA ANSCO CORPORATION**

BINGHAMTON, N. Y.



BRANCHES: BOSTON NEW YORK CINCINNATI CHICAGO KANSAS CITY SAN FRANCISCO LOS ANGELES  
AGFA ANSCO LTD., 204 KING ST. EAST, TORONTO, ONTARIO

Please mention Camera Craft when corresponding with Advertisers

# LIOS-SCOP

The SIMPLEST and MOST  
ACCURATE EXPOSURE  
METER.  
EQUALLY RELIABLE  
UNDER NATURAL  
AND ARTIFICIAL  
LIGHT



## FOR STILL and CINE CAMERAS

You look thru the meter in whose field are 16 numbers. These numbers are actual exposure times ranging from 4 minutes to 1/250 of a second. When you reach a number which is still discernible but barely visible, you have your correct exposure time for a predetermined stop and emulsion speed—without further calculation. In order to obtain the correct exposure for other stops, look for the least visible exposure factor on the outside of the meter, align it with the Scheiner or H & D speed of your film or plate and read off your correct diaphragm stop which is aligned with these two factors. Other exposure times are then automatically aligned with corresponding diaphragms. For motion picture work, the procedure is equally simple. Free Trial gladly granted.

PRICE COMPLETE WITH SOLE LEATHER CASE ..... \$5.75

**BURLEIGH BROS**  
127 WEST 42 STREET NEW YORK

For SATISFACTION  
Send your repairs to SHARMAN

BESIDES  
REPAIRING  
We Make The  
SHARMAN  
TRIPOD



Send for pamphlet or \$8.50  
see it at your dealers

**SHARMAN  
CAMERA WORKS**  
165 POST STREET  
SAN FRANCISCO

**CAMERA REPAIRING**  
and SPECIAL CONSTRUCTION

# COMING

William Mortensen. And now we have big news for the Minicams. Mr. Mortensen's series of two articles on the Use of the Miniature Camera for Pictorial Photography will start in our August issue. We don't need to tell you how good, how very helpful, these will be. No single Minicam can afford to miss them.

A. Wittmer has prepared a really instructive article, fully illustrated by means of both pictures and accompanying diagrams, on Portraiture with Two Photofoods. This will give the reader full information on how to make portraits of excellent quality with a minimum of lighting equipment.

Cecil R. Nelin will tell just what you want to know in his very instructive article on Night Photography. He is a real night photography fan and his enthusiasm is evident in his article to the point of contagion.

P. H. Oelman is a successful illustrative photographer, an instructor in photography, and a prominent pictorialist. Several of his pictures have won awards in our advanced competition. He is convinced that the practice of still life photography is a most practical method for learning a great deal about both composition and lighting. His article on Still Life Photography will be written from that view point.

Beauford B. Fisher is a name which we believe Camera Craft readers will soon learn to treasure, for he reveals himself as an original experimenter, in other words, just the sort of man who has something valuable to say to the student of photography. His pictures have been hung in virtually all of the large Saloons throughout the world. He has recently taken up photography as a profession. An example of his work appeared as first prize in our Advanced competition for November. We pointed out that this picture was an experimental example of fine technique in the paper negative process in as much as the skin textures had been so well maintained. Mr. Fisher will describe the paper negative process in full detail in an early issue.

Edwin C. Buxbaum, A.R.P.S., whose name is already familiar to the readers of this magazine, has prepared a carefully worked out series of four articles on Miniature Camera Technique which we know will prove very helpful to all Minicams. The sections on films and filters are of especial value and approach the two subjects from a new angle that is most instructive.

P. Douglas Anderson, A.R.P.S., whose article on "Outdoor Portraiture" in our October issue received much favorable comment, has devised a splendid means of illustrating the various lightings that may be obtained outdoors. His article "More About Outdoor Portraiture" will appear in an early issue.

George H. Needham, F.R.M.S., whose article on "Low Power Photomicrography" appeared in our February issue is now working on a second paper which will discuss the ramifications of high power work. This paper will be of great interest to those who are doing advanced work in photomicrography.





*"Sale temps"*

*Leonard Missone*

*17th Los Angeles Salon*



# Notes On The Miniature Camera

William Mortensen

**M**OST of us will recollect, among the more terrifying experiences of our childhood, the day that we were carefully scrubbed and led to have our pictures taken. Two details usually dominate such remembrances. First, a man who bounded about, dishevelled and distracted, doing strange things and making strange noises. This odd creature we subsequently identified as the photographer. Second, an apparatus slightly smaller than a freight car but much more alarming in appearance, apparently designed by a Spanish Inquisitor out of spare parts of a draw-bridge, which glowered horrifically under a black hood at the far end of the room.

When the owner of a modern miniature instrument compares his compact handful of camera with this medieval monster and realizes that it can do everything that the monster did except frighten children into convulsions, it is obvious to him that, in the material sense, photography is at present making huge advances. Unfortunately many a Leica or Contax owner is failing to take full advantage of the peculiar abilities of his camera. He seems content to treat it as a sort of super-Kodak for securing super-snap-shots which he steps up into unimaginative enlargements of the drug store type. The miniature camera, of course, admirably fulfills such pedestrian purposes as keeping records of travel and sporting events and Junior with his new bicycle and similar domestic history; but it is not so generally realized that it excels all other types of equipment for photography of the creative, pictorial type.

Some of the advantages of the miniature camera as applied to pictorial work are so obvious that they need only to be mentioned. Such for example are its cheapness of operation facilitating free experimentation, and its small size which makes it very apt in securing angle shots and in taking prompt advantage of accidentally provided opportunities.

The lens of short focal length (50 mm) that is regularly supplied as stock equipment with both kinds of miniature cameras, is, if properly understood, the type best suited to pictorial purposes. Such a lens has,

of course, much greater depth of field than one of the longer focal lengths which are the standard choice of most of the old-line photographers. This increased depth of field has the effect of rendering the subject in terms of flat patterns of light and dark areas instead of in terms of greater and lesser definition. To be sure, the short focal length produces in certain instances considerable aberration and distortion of drawing. This point is a favorite with the proponents of long focal lengths. We have all of us seen pictures in which feet, protruded toward the camera, take on freakish dimensions, or in which a horse, photographed head-on, dwindles to dwarfish hind-quarters. Such pictures used to be exhibited as demonstrating the faults of a short focal length; rather, they demonstrate faulty arrangement of subject-matter. Slight resourcefulness on the part of the photographer of such awful examples would have enabled him to compose his material into a two-dimensional plane and simultaneously eliminate the aberration and produce a more pleasing pictorial result. The short focal length lens, by forcing its user thus to arrange his material, forces him also to give thought to such primary pictorial considerations as linear patterns and *notan* values.

I have come to much prefer, for pictorial use, the view finder of the miniature camera to the ground-glass of cameras of the reflex type. The very smallness of the image in the view finder causes one to judge its pictorial values in terms of large planes and broad patterns of light and dark. Indeed, it is impossible under normal conditions, to see things in the ground-glass in the two-dimensional aspect they will assume when photographed. For when one closes down the diaphragm to bring the background into focus, the image on the glass becomes too dim and dark to be of any use.

The quality of selectivity, which distinguishes pictorial photography from photography that is merely realistic and fact-recording, is readily achieved with the miniature camera. Of course the very flexibility and portability of the little instrument gives it extreme freedom in the selection of subject-matter and effective angles; but a more significant selection is achieved in the mere process of enlarging the 35 millimeter negative to an 11x14 print. This tremendous amplification emphasises planes and patterns and subordinates details, keeping perfect gradation with no apparent loss in definition. A landscape is seen by the miniature camera, not as a group of contradictorily clamouring details, but as large masses and simple planes—as the artist sees it. Similarly a portrait with a miniature camera reveals the structure and dominating characteristics of a face, rather than its lesser details, its textures and its blemishes.

The various procedures of Projection Control—framing, local printing, dodging, distortion, and montage—which I have discussed in previous articles, are all applicable to miniature negatives and greatly increase the small camera's scope for selectivity.

Such special processes as the little-understood bromoil transfer and the neglected paper negative are particularly happy mediums for working up the products of the miniature camera. Both are susceptible to a high degree of control and provide a great stimulus to a worker with imagina-



*"Rope Dancer"*

*William Mortensen*

Leica camera, 50 mm lens. Bromoil transfer.

tion. In an article to follow, I will consider the advantages of the paper negative to miniature pictorialists.

Most minicam owners nowadays are greatly hampered in getting the best out of their cameras by several technical obsessions that are earnestly fostered by dealers and manufacturers. These obsessions are four in number and are concerned, respectively, with (1) grainlessness, (2) speed, (3) colour correction, and (4) gadgets.

Under the vogue for grainlessness there have been marketed thousands of gallons of developer—some good, some useless, some consisting of old stand-byes in fancy bottles with new labels, and some definitely poisonous, to susceptible individuals. As a matter of fact, grainlessness is not particularly related to extremely modern methods and formulas. I have, in my files, many ten-year-old negatives that were developed in the tabloid Rytol solution and are nearly devoid of grain. For pictorial use a certain amount of grain is rather an advantage than otherwise, as it produces a vibration that is more effective than a (technically) more perfect print. In making bromoil transfers considerable grain in the matrix is permissible as the graininess of the processes tends to counteract the grain of the original print.

The speed obsession takes on two manifestations: speed and lenses. Instead of working out the possibilities of a lens of moderate aperture, the bedeviled minicam owner sets his ideal at something that looks like a locomotive headlight, and hastily acquires F 2 and F 1.5 and dreamily contemplates the day when he will be able to own F 0.9. Save for very special problems, such stupendous apertures are not of the slightest use to the average worker. Speed is a quality that can be gained only by the loss of other qualities much more important. A lens of F 2 aperture is quite incapable of obtaining the depth of field necessary for pictorial work. Of course such a lens may be closed down till the desired definition is obtained, but the lens in such a case might as well have been F 3.5 in the first place, thus saving one the embarrassment of a large amount of excess baggage of expensive and un-needed glass. The weight of such lenses is out of proportion to the camera, and is apt in my experience, to cause vibration of the tripod. Films have similarly become afflicted by the speed mania. Speed emulsions and super-speed emulsions have made their appearance, and without doubt extra-hyper-ultra-super-speed emulsions are just around the corner. One five-hundredth of a second on par-speed film is amply rapid to care for all normal events of man and beast. As in the case of lenses, film emulsions are speeded up only by the sacrifice of desirable qualities. It has been my experience that the super sensitive emulsions invariably produce degraded half-tones with greatly increased grain.

The obsession for colour correction has led some owners of miniature cameras a merry dance of desperate experimentation with strange types of films and with filters of all colours of the rainbow and some new ones. The result of this experimentation has for most workers been very meager, and many of the so-called "successful" prints would have been much better if they had been done on ortho film without filters. Frequently indeed, the distortion of colour values is a pictorial advantage. If one accepts the premise of the creative pictorial worker that the end of photographic art is not fact but the *interpretation* of fact in terms of the medium, the zeal for colour correction is seen to be of little account. The conversion of colour into a scale of grays is a matter of accepted convention, and the change of the relative position of some colours on this scale does not alter the convention.

The obsession for gadgets is perhaps the most prevalent of all the false ideals that afflict the average minicam owner. There are adjuncts, appurtenances and attachments without number that monthly sing their siren songs from the advertising pages of photographic journals. Some of it is special equipment designed for specialists, but a great deal of it is gadgets, dingeses, thingumies and doodads of a fantastic degree of uselessness that seems to have been conceived in the fertile brain of Rube Goldberg. The special equipment is undoubtedly well adapted to its purpose, but for the average amateur to stock up on boxes of lenses and racks of filters is not only unnecessary but a distinct hinderance to his advancement in his craft. Many a miniature camera is now lying discarded on the shelf because its disgusted owner was not able to make his ponderous and overwhelming equipment do what it was supposed to do. To try to improve one's pictures by buying complicated equipment is like studying differential calculus in order to learn to add two plus two. Many an enthusiast has sunk a thousand dollars in equipment without bothering to learn how to make a correct exposure or how to correctly develop it.

In speaking of the vanity of gadgets I do not speak lightly. As a pioneer struggler with miniature cameras who has sowed his wild paraphenyldiamine and wasted his substance in riotous experimentation, I speak from the heart when I say that gadgets are the prime time-wasters and energy-disperser. There was a time when I too lent an ear to their seductions and tried them all. Every dingus that could be hung onto a camera, every foul brew that could be used for developing, every paper, every film that the market offered—with these I wasted my youth. My once great beauty, alas, has faded, my back is bowed and my feet are flat; but I have learned to abjure gadgets and haphazard experimentation.

This attitude does not imply any blindness to genuine advances in methods or equipment. But such significant advances always so obviously and unmistakably fill a definite need that there is no possibility of confusing them with the common run of ingeniously useless inventions. Such an advance was made recently, for example, in developing the automatic focusing device for the projection enlarger. In general the use of new things is prone to run ahead of the proper understanding of them. Many a minicam owner would do well to leave technique to the technicians and put his camera to the almost forgotten task of taking pictures.

In equipment of the extremest simplicity lies the best hope for success in pictorial work with the miniature camera. Such a list of essentials as the one that I shall presently suggest will, I fear, seem insultingly meager to the minicamist who is prone to console himself for lack of results by treating himself to fresh equipment, after the manner of the well-known feminine habit of buying a new hat to rouse the drooping spirit. The list, small as it is, is adequate for all purposes, saving only the most specialized, and one could easily spend several life-times in learning to use it properly.

Here then is the list:

Miniature camera with 50 mm lens.

Cable release.





Preliminary thumbnail sketch  
for "Indian Serenade"

K2. filter.

A hood.

6 magazines.

Green viewing glass.

Vertical enlarger with good lens and condensers.

This equipment is used in connection with the following materials and formulas.

Eastman Panatomic film.

Defender Medium weight white rough matt paper.

For developing, D76 (Eastman) or a similar boric acid-borax formula.

Equipment of value only as it is used, and nothing is included above that is not immediately useful in the making of pictures. Abjured along with hampering excess of equipment are all faddish procedures relating to temperature, rinsing, washing, drying, etc., over which minicam owners have spent tormented days and sleepless nights. Much more important are skilful handling, clean apparatus, fresh chemicals, and good sense.

As I have claimed such pictorial advantages for the miniature camera, I have chosen for demonstration a pictorial subject involving an extreme degree of romanticism and illusionary quality. "Indian Serenade" despite its delicately lyric vein and exotic atmosphere, is assembled from quite common and ordinary materials. The picture was taken indoors, and the lengthy perspective was not greater than twenty feet.

Set up for  
"Indian Serenade"



The material components of the picture were the following:

A white wall.

A dish pan of water.

A cement floor.

Two people.

A baby spot.

Some artificial flowers.

Gleanings from rag bags.

Eight yards of pink gauze of two shades.

Two grass mats.

Prunings of a rose bush.

A musical instrument.

The picture is arranged in a series of parallel planes. The first and most distant plane is comprised of the sky and mountains, the second, of the tree and figures, the third, of the foreground. Thus a clear sense of recession and space is given, without loss of two dimensional quality.

A rough pencil sketch served to establish the main planes of the picture, to give an approximate idea of the linear and *notan* pattern, and to indicate the framing and relating of the figures to the picture-space. I find that use of such a preliminary sketch is indispensable, as it compels one to visualize in advance and obviates aimless experimentation at the time of shooting.

The set was carefully arranged before hand. Directly in front of the white background was laid the pink gauze, bunched up to represent the mountains, the paler colour serving for the distant ranges and the darker for the nearer ones. Five feet from the background the grass mats were

put down, the flowers sprinkled about, and the tree suspended from the ceiling. Then for about fifteen feet in front of the grass mats, the cement floor was well wet down, laying in the water in streaks parallel to the background. The costumes consist simply of a few bits of cloth pinned about and draped. The materials were selected for their photographic and *notan* qualities rather than their intrinsic beauty, taking due care, of course, to avoid extreme contrasts of black and white. Authenticity was not aimed at; rather the endeavor was to suggest the *spirit* of the oriental garb with as few elements as possible.

In arranging the models it was found necessary to seat the man on a small stool in order to create the desired pyramidal composition. The tree was shifted somewhat and a few twigs lopped in order to bring it into more harmonious conformation with the figures. The flowers were adjusted until they furnished effectively placed accents.

The white background was well illuminated, and from another source the characters were given a flat front light. For the moon a "baby Klieg" was used, which with the aid of a cardboard mask was made to cast a spot of intense illumination on the background. To avoid hitting the characters with the shaft of light it was necessary to place the Klieg to one side. This of course produced an oval moon until the hole in the cardboard was altered to correct this distortion.

Finally, the whole set-up was studied through a blue glass, observing the *notan* pattern, noting and correcting a few bad contrasts. The moon was moved to its most effective placement relative to the heads, and a last slight rearrangement was made of the foliage.

The camera was placed on a low tripod, about five inches from the floor and twenty feet from the back wall. This low position of the camera was chosen to get a low horizon line, giving dominance to the figures and making it easier to build a pyramidal composition. It also secures the best reflections from the wet floor. A large number of exposures were taken, about three rolls in all, with slight variations in exposure, and gradual and slight changes in the inter-relationship of the smaller elements of the picture.

Enlarged proofs about 3 by 4 inches were made of all the perfect negatives in the three rolls. Then followed a long process of elimination and selection on the basis of two standards—subject interest and *notan* pattern. When the group was reduced to two or three the final choice was on a basis of subject interest. Thus three standards of choice entered into this stage of the picture.

1. Negative quality.
2. *Notan* pattern.
3. Subject interest.

A considerable amount of Projection Control was employed in making the final print. Much care was used in *framing* so as to secure the proper relationship of the figures to the picture space. *Dodging* with the finger tip was resorted to in order to lighten the moon and darken the tone of the rest of the picture. Through *dodging* also were secured the deep tones in the upper corners of the picture.

(To be continued)



*"Indian Serenade"*

*William Mortensen*

Taken in studio with Leica camera, 50 mm lens,  $\frac{1}{2}$  second at F:9, Eastman Panatomic film, developed in D 76. Bromide print with Projection Control.

*This, and the subsequent installment which will appear in our September issue, are part of a book on "Pictorial Photography With the Miniature Camera" on which Mr. Mortensen is now working. It will be published by this company at the earliest possible date.—ED.*

# A Job Of Photomontage

Albert Jourdan

THE institution which provided the job advertises itself as being "One of the Northwest's great banks" though it is among the sixty-odd greatest ones of the land, both as to resources and size of building occupied. As I have about seventy negatives of it, made over a period of ten years to order of its architects, I wondered one day just what sort of story they might tell about it. So mindful of the slogan adopted some years ago by a photographer's association, "Let photographs tell the story," I spent an hour or so looking them over and selected the twenty-five most promising ones. A set of contact prints from them certainly does tell something about the place, but less a story than a dry, awfully matter of fact report of physical conditions or appearances; a report akin to one about a desert, a lonely sea or other uninhabited place. Put in a folio, loose or bound, they are naught but a photo-album of visual records of material facts, and as such they are not a "story.". Were twenty-five more added to those the whole would constitute a string of, say, fifty words, or sentences, or paragraphs or even photo-chapters in the tale; but the addition could not change the nature of the story, it would still be a rather dull thing because too much like a wholesaler's illustrated catalogue.

That bank's building occupies a half block, and being practically the center of the financial and business district its exterior is usually enlivened by bustling throngs of pedestrians and much vehicular traffic. But Fig. 1, which is an excellent architectural representation of its east face, gives no indication of the activity, because certain photographic limitations prevented the inclusion of life and motion when the shot was made. Fig. 2 is better in telling the story of the exterior activity and life, but is not good architecturally because the drawing is bad, and it is fierce photographically because, to show a lot of building and stop a lot of motion, a few optical and exposure rules had to be violated. Fig. 3 can interest only architects, because at best it depicts just part of the entablature of a latter day version and use of the ancient Corinthian sytle. It certainly tells no story about the institution. So far, then, we have seen three chosen photos, and have no story in sight. The three items are only records of the exterior of a bank building.





Fig. 1



Fig. 2

On the ground floor of that building and flush with the street levels there is a room one by two hundred feet in interior dimensions. It is the largest main banking room west of the Rockies and is surpassed or even equalled by only a very few elsewhere. But while Fig. 4—which is an extreme wide angle view showing the most that can be expected of it—gives one an idea of its size, it is otherwise as unsatisfactory as Fig. 1, and for the same reason, because it is only a physical record; lifeless. It was difficult to make and was most satisfactory for its purpose, but it is certainly not a story-telling photo. By adding it to the three preceding ones, however, we begin to build up a photo-album or illustrated catalogue recording a few material items, physical facts, but not, let me say, spiritual facts or values.

Below that great banking room there is an equally big basement devoted to many departments, the extensive safety deposit vaults for one, and Fig. 4 shows the foot of the stairway leading into it. It is a very fine stairway, of costly marble, but like the preceding items it was photographed without life present, and is a mere architectural record. Along



Fig. 3



Fig. 4



Fig. 5

the hallway to the right of that stairway is the entrance to the vaults, depicted in Fig. 6, and Fig. 7 shows about two-thirds of their interior. The two are good enough as records, but certainly don't tell a story, at best they add to the album begun above, which now consists of seven pieces. Seven photos that are passably good as a whole, and some of which are, for their original specific purpose, mighty good things in fact. But not a single one of them tells anything like a story, and as a group of seven—say, seven sentences or paragraphs—what they do tell isn't a bit exciting. Two of them, Figs. 1 and 4, are of subjects involving the best of photographic technique, but only a photographer is likely to know or notice that and care a rap about it. To the average beholder, those seven shots as much as say: "Here we are, seven views of a costly building, no doubt a bank as one of us tells, some are interior and others exterior views. We are representations of the structure while no life was in sight of the camera, and for all you know, mister (or madam), we may have been made before the bank was ever opened for business or, possibly, after it went broke."

As has been intimated, these seven views were chosen from a previously selected twenty-five promising negatives out of many more made over a period of years; but they all lack the most vital thing for story-tellers; life and action. To help these seven tell a story, others, depicting life chiefly, were needed, so I took advantage of two factors in an attempt to photograph crowds of customers in the main banking room

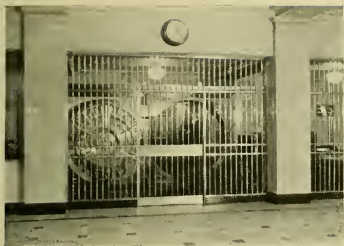


Fig. 6



Fig. 7

during business hours. First of all, the fact that one end of that room has a good deal of daylight in it, and, secondly, that present day emulsions are extremely fast and are highly sensitive to the yellow light from incandescent bulbs—of which there are hundreds, in huge clusters, in the big room. None the less a few problems had to be solved before I could make the shots required. One was, that fast as the emulsions are, there never is quite enough light in that place to make sufficiently fast exposures—with an *appropriate* lens—to stop motions and also give enough negative density. To settle that matter I hypersensitized a couple of dozen films. But there still remained the almost baffling fact that, while one end of the room has ample light in it, the other hasn't quite enough for *minimum* exposures, which, therefore, are sure to result in excessive contrastiness of photo-images. To overcome that in part I tried an optical trick which violates a few rules.

First off—as I used a 5 by 7 view camera for the work—I selected an f:4.5 lens of only 5-inch focal length—instead of the 8 to 9-inch usually recommended by the rules—and next I mounted it an inch off center in the board instead of in its middle. The intent in this was to project the bright part of the subject matter near the edge of the image circle of the lens, where its light grasp or transmission is least and the dull part of it to the center of the circle where it is strongest and brightest; thereby hoping to lessen the actinic effect of the brightest part of Fig. 8 and increase that of its duller near end. And of course I succeeded, though in part only; but in such circumstances every little thing helps to turn sure failure into near success. The twelve shots of which Fig. 8 is a part were made from a mezzanine some twenty-five feet above the crowds, at exposures of between 1/8th and 1/10th of a second; barely enough to arrest the motions of most customers and give sufficient exposure for good records. A dozen more—with the lens placed normally, in the center of another board—were made from near the stair rails shown in Fig. 4, and Fig. 9 is from that set. These two selected records of the life and action in the banking room are the best of the lot made and surely tell more of a story than the first seven things, but like the latter they have serious flaws as stories. For one thing they are not of such



Fig. 8

good photographic quality, and for another—as single, story-telling photos—they don't show enough of the place, say a half of the great banking room in the case of Fig. 9 and a third or quarter of it in Fig. 8. But added to the catalogue already assembled they tell a more interesting, rather longer, story if only by bringing life into it. With these nine photographs, then, we begin to get something like a story about that bank. Not much of a story of course, one of nine paragraphs or chapters, all disconnected, and each of which must, in some way and by effort, be correlated by whomsoever wants to make them intelligibly connected. Nine more like those added to them would tell twice as much story, and eighteen more added to that would tell four times more story no doubt. But a jump from nine to thirty-six photos, or paragraphs or chapters, is the difference between a fairly short story and a novel, and what this job calls for is a *short* story, not a cyclopedia.

Fig. 11 represents, I think, a fairly good short story of the kind required; and it doesn't, or shouldn't, need any explanation. If it does, it is a failure. But as all this is written to discuss such things I am forced to explain it: It is an attempt to tell, in *one* picture, much more, and more rapidly and convincingly, than could be told with from thirty to fifty photos in an album or hung up in a row on a wall. At first glance the composite picture may not seem to be much of a trick to do, and now, since it has been made and almost forgotten about, I tend to feel that way myself. But as a matter of plain fact its production involves many



Fig. 9

difficulties, chiefly mechanical ones. It is one thing to visualize such a picture, lazily and loosely in one's mind, but quite another thing indeed to compose and materialize it with rather refractory material. For example: while all the negatives from which its component parts were selected are 5 by 7s, the usable part of each image varied much in size, and some comparatively tiny items had to be enlarged greatly while large ones needed almost none. And the great trick, the trickily confusing part of the job, was to determine accurately just which item needed be enlarged how much, and where it should be placed in correlation with all the others. On that score alone such a job is a bit trickier than were most jigsaw puzzles.

Having been made over a period of years the negatives differ a good deal in quality, partly because some are on now practically obsolete emulsions and, partly, because all were handled in highly varying ways. The negative for Fig. 4 for example, was made on the old, comparatively slow and very contrasty Commercial Panchromatic Film, and was exposed for  $1\frac{1}{2}$  hours and developed  $2\frac{1}{2}$  hours in stand pyro controlled by radical diminution of alkali content; so it typifies a case of extreme contrasts scaled down by, let me say, too much light and not enough development (?). And the negative for Fig. 3 was made in the very dull, flat light of a rainy day, so was given minimum exposure and maximum development to bring out such contrasts as there were; and so on for the other nine items. A passably good set of prints can be made from any of those negatives very simply, but to make a set that are matched in color and tone value for copying and representation as a unit, is not nearly so easy, and uniformity of color and tone is a prime requisite to make such a job successful.

Use of a fast and soft bromide paper with contrasty negatives and,





Fig. 10

say, of a slow hard one for soft or thin negatives, and use of perhaps intermediate paper emulsions for intermediate negatives seems, on snap judgment, the simplest way to make prints of uniform color and tone value from negatives of varying qualities. And that is fairly true so far as making single, individual photographs goes. But it seems to me that no matter how carefully the paper surfaces have been chosen to match, such an assemblage of prints are decidedly off one another when they are juxtaposed; and assuredly, whatever differences there are in them which the eye fails to discern clearly, the lens infallibly grasps and usually accentuates. So the only way to be sure and make a composite picture which, when copied properly, will make prints of harmonious color and tone values, is to make them all on the same paper. Therefore I chose for the job a rather slow chloride enlargement paper which has great latitude; great latitude in time of exposure permissible and also of development, and a semi-matte surface which is fine to copy. And the choice was so good that I got the needed nine prints to make the composite by making only two sets, which, with five flukes and wastes, made a total of 23 prints. When dried the items were cut to desired size and mounted with rubber cement on a board, and arranged into a 16 by 20-inch original as per Fig. 11 for copying and eventual reproduction.

As I have said, either this photomontage tells a story or it doesn't. A good story doesn't need an explanation and the best of explanations



Fig. 10

The completed composite

only make bad stories worse, so all I may do is discuss briefly the diverse components of this one. It centers on the lifeless but architecturally imposing wide angle view of the main banking room, Fig. 4, which therefore is central in the composite. To indicate the life and action in it during business hours Fig. 9 was put above it, and, to tie those together and correlate them, the vertical strip at their right, selected from Fig. 8, was made and used. Right under the stair rail of the big room was placed the bottom of that stairway, for two reasons, partly because it is the bottom of it and, also because it acts as foundation or support for the rather end-heavy item above it, and furthermore because its verticals take the eye upward into the picture. On either side of it are the entrance to and the interior of the safe deposit vaults to which it leads, and which, with it, form a horizontal row, to tie together the two items above and to indicate the uses of the bank's basement. To provide a strong foundation for the entire composite the long horizontal strip, selected from Fig. 2, was used also because it connects the three basement items above it and, importantly enough, typifies the exterior's architecture and the life and action in the immediate district. But, as reference to Fig. 10 shows, so far we have, substantially and particularly at the left edge of the composition, nothing but four short rows of photos stuck one above the other. Therefore one of the columns from Fig. 1 was used to tie the horizontal rows together, and also to carry further the idea of the exterior architecture by giving an indication of its height, and on top of that—as Amos often tells Andy—the vertical bright left half and dark right half of that column acts as splendid foil or counterbalance for the vertical item which, at the top right of the picture, binds together the two main interiors in the center. The topmost horizontal strip was, of course, taken from Fig. 3, and being part of an entablature appropriately enough juts out rightward from the capital of the column to connect it, horizontally, with the rest of the items. Thus the composite photo is an assembly of six interior items connected and framed by three exterior views, the whole intended to give an idea of both the inside and outside of the institution and its various activities.

At best and worst it is a copy, a copy of original photographs; the prints made from that composite negative are copy-prints; and copies, said a self-proclaimed authority to me one day long ago, are easy to make; easy as rolling off a log tumbling in white-water. But so saying that authority talked through his hat, because unless I miss my guess by miles copies, good copies, that is, are among the most ticklish of *photographic* jobs. There is no art to copying, nor a bit of need for any; but a lot of real photo-craftsmanship is involved. A copy of this kind must be perfectly illuminated in the first place and in the second place the exposure must be as exact as possible, because the plate emulsion latitude which saves most other subjects doesn't seem to cut much ice with copies. In the third place, that exact exposure must be developed correctly, and finally, when those first, second and third places have been filled properly, there is a fourth place which refuses to be left vacant: it is, to make the very best possible prints from that best possible copy-negative.

# Composition For The Beginner

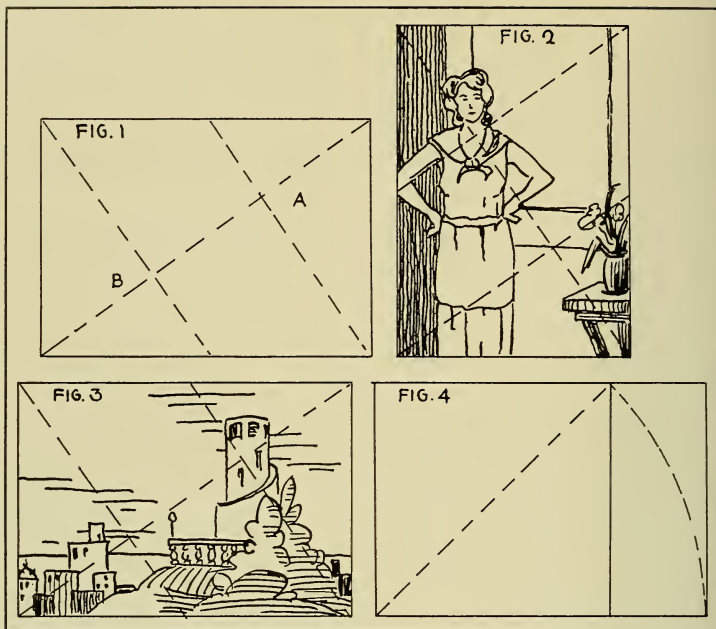
Thomas A. Wilson, M. S.

**I**N ancient times sculpture was the favorite medium for artistic expression; since then painting has been the most popular; but photography has rapidly gained on these rivals of the past, and it is now of first-rate importance in the world of art. In the fields of portraiture, landscape, and commercial art, photography is more popular than ever before, but this recent popularity is not due only to improvements in cameras, films, or papers—it is due to the application of sound principles of artistic composition. Some of these principles are very old, and nearly all of them have been borrowed from the older arts of sculpture and painting. It is well, then, for beginning photographers to study these principles carefully, and for experienced photographers to keep them constantly in mind, for no matter how well-timed and well developed is the negative, the print will not likely be classed as fine-art unless the composition is also well-done.

Composition, to many, means a mysterious something which must be learned through the tedious study of text books, or in an art school. Also, because some modern works of art appear to be carelessly composed, some persons come to the erroneous conclusion that composition is just so much “hooey.” Both of these ideas are wrong, for composition is not really very difficult, but it is absolutely necessary. It is the quality that causes a picture to tell its story in the most effective way, and even the simplest pictures, and pictures which appear to be the most natural, are usually very carefully planned and composed.

Composition is the orderly arrangement of the elements of a picture so that the most pleasing result is obtained. There is nothing mysterious about that—it is just common sense plus a few little tricks learned from the trials and errors of the past.

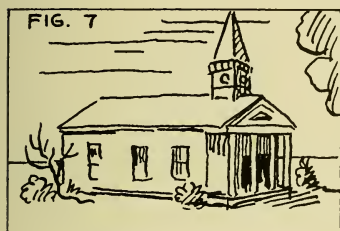
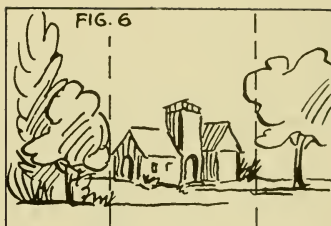
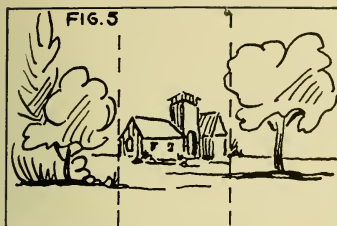
An unlimited amount of orderly arrangement may be seen in nature herself, but nature can hardly be referred to as composition, because nature is infinite; there is no definite beginning, and no end. Immediately, however, that one attempts to record something of nature upon a canvas, or upon a gelatined paper, orderly association becomes necessary. The picture must have a definite size and shape, it must be placed somewhere, and it must convey some kind of meaning. It has composition when some one has deliberately chosen certain elements and rejected others. The



painter may do this readily—he may omit a tree, he may add a mountain, or he may actually paint nature better than she really is, and thus easily establish order. The photographer, however, is limited by his medium to picture whatever the camera sees, and it is up to him to make the most of embellishments upon nature rather than actual improvements. For instance, his bag of tricks contains the ability to alter the natural lighting, to use the most suitable proportions for his pictures, to “shoot” from the most effective angles, and although he can scarcely alter the actual order or design of the subject being photographed, he can take care that his picture contains symmetry, or the proper balance of its elements; that it has rhythm, or a sense of motion; and that it is a harmonious unit.

About the first thing to consider in composing a picture is its shape. Now right angles and circles are the rarest geometrical figures in nature, and for that reason are displeasing to the eye, for the eye likes best of all to dwell upon natural and familiar things. But man-made things are usually composed of angles and circles, so we will start first with the square form. This is often used in abstract design but seldom in photography. It suggests a feeling of strength and immobility, but for most purposes this shape is the least interesting of all shapes, for, all sides being the same length, it has no contrast of proportion and offers no variety.



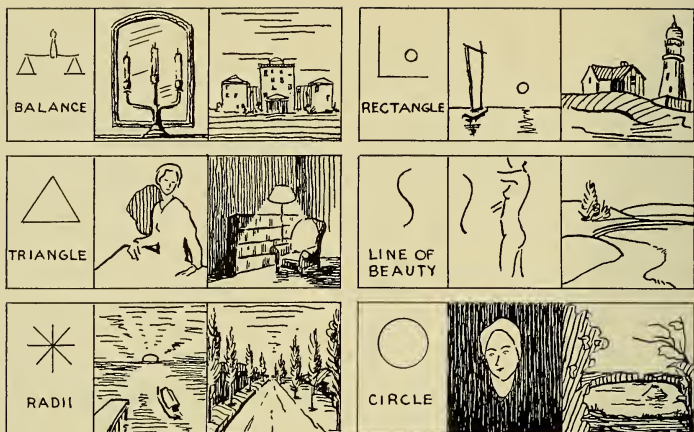


The rectangle has variety. When standing upright, it emphasizes a feeling of verticality; and tall trees, skyscrapers, towers, and the like fit the upright rectangle. Resting on its side it suggests repose, and for pictures of the sea, desert, or any representation of wide spaces, it may be used most effectively. Also, pictures of all kinds are easier to view if their width is greater than their height. This is because the two eyes are in a horizontal position, naturally causing a horizontal field of vision. The upright shape causes a bit of eye strain, and was probably first invented to fit pictures into vertical wall spaces.

The most pleasing form of the rectangle was discovered in ancient times, and to achieve this form a diagonal is drawn through a square, and this line serves as the long way of the rectangle while one side of the original square serves as the short way (Fig. 4). The 5 by 7 inch film was probably arrived at with this ancient proportion in mind. An intricate system for composition has been worked out using squares, diagonals, and roots in this manner, but it is of more use to the painter than to the photographer.

Certain portions of a picture have more interest value than other portions. The exact location of such areas varies somewhat in different types of composition, but figures 1, 2, and 3 illustrate the areas of greatest pictorial interest in most pictures. Generally the center of a picture is the least interesting, and the most important element within a picture should not usually be placed there. However, the center or any other part of a picture should not lack some kind of interest, although this does not mean detail.

In placing subjects within a picture, equal divisions along the edge



of the picture, equal spaces, or, in fact, any exact subdivisions are to be avoided. Good and poor subdivisions of the rectangle are illustrated in Figs. 5 to 8.

The circle is a very beautiful form, although it, too, lacks variety because all parts of its border are equal distances from its center. It is often used to suggest a feeling of instability, for an unbalanced design within a circle suggests unceasing motion. The oval offers more variety of proportion than the circle, and when resting on its side, it corresponds with our field of vision better than does any other shape. The vertical oval is generally displeasing for a picture of landscape, but it may sometimes be used to advantage for portraits.

Regardless of the shape of the picture, the design within it is usually one of several familiar forms of construction (Fig. 9). The most frequently used forms are triangular, circular, radial, rectangular, and composition based on the "line of beauty." We generally examine a picture from its base upwards, and this makes the triangular form of design one of the most interesting. The triangle resting on its base suggests a feeling of absolute repose; resting on an angle, it suggests a high degree of instability or movement. Designs in which the direction of the lines of interest form a zig-zag or an S shape are spoken of as composition based on "the line of curvature" or "line of beauty." Hogarth originated the "line of beauty" phrase because this shape resembles the shape of a woman's back.

The elements of a picture which go to make up its design must be arranged in a pleasing and harmonious way—that is, they must be properly "balanced." This is accomplished by the use of tone values and the direction of principal lines of interest. The best methods of obtaining balance will be taken up in the next part of this series of articles.

# A Convenient Copying Stand

Harry A. Kay

A COPYING stand is not only a great convenience, but practically a necessity, in any modern darkroom. Generally such a device takes up too much space when not in use, and most darkrooms are none too large to begin with. This objection is entirely overcome in the stand here illustrated, as it is both portable and partly collapsible. When not in use it extends only four inches from the wall, and if so desired can be readily removed from the darkroom.

Here is a complete list of the lumber required to build this stand:

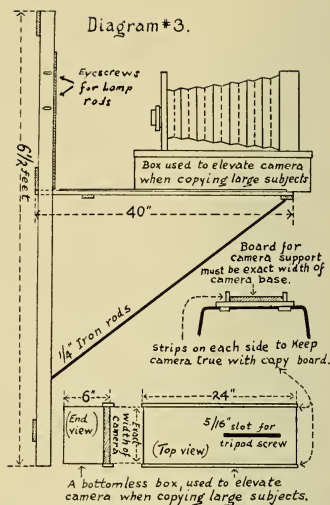
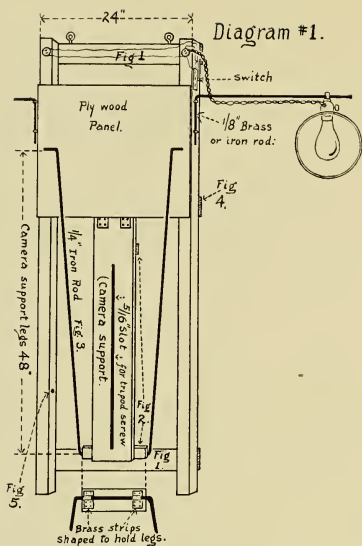
- 2 pieces, 2x3x6½ feet, for the uprights;
- 3 pieces 1x3x2 feet, to be attached to back of uprights;
- 1 piece 1x8x40 inches, for camera support;
- 1 piece 1x8x24 inches, for top of elevating box;
- 2 pieces 1x6x24 inches, for sides of elevating box;
- 2 pieces 1x6x8 inches, for ends of elevating box;
- 1 piece 24x24 inches, of ¼ inch ply-wood for copy panel;
- 1 piece ¼x1x8 feet, for guide strips on camera support and box;
- 2 pieces 1x2x2 feet, for cleats on camera support;
- All lumber to be clear #1 stock, surfaced on four sides.

Other materials required:

- 2 pieces 1/8x30 inches, round brass or iron rod;
- 1 piece ¼x112 inches, round iron rod;
- 2 key sockets,
- 2 one inch brass or iron nipples, to fit sockets;
- 2 brass reflectors, as illustrated, 6½ inches in diameter or more;
- 2 convenience outlets and plugs;
- 1 double throw, double pole, knife switch;
- 2 large and 4 medium, eyescrews;
- 6 feet twisted lamp cord and some black electric wire;
- 2 brass hinges 1½ inches wide;

With all materials on hand, let's proceed to build the outfit.

Nail a piece of 1x3 to the ends of uprights, against their narrowest sides. Nail a similar piece on near the other ends, or bottom, as shown in Diagram 1, Figure 1.

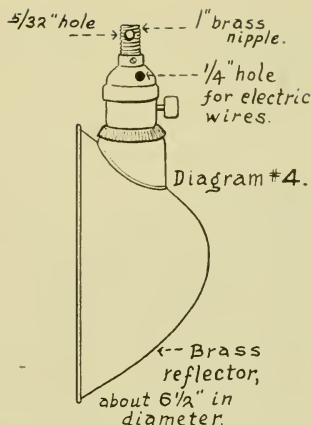


Next, attach the ply-wood panels as shown. Have the lower edge of this panels about four feet from bottom of stand.

Measure the width of bed on camera to be used and plane the piece of 1x8 board to fit. Leave it just a shade wider, so that camera will slide freely, but not wobble, after side guides are attached. Nail a piece of 1x2x12 inches to one end, (see Diagram 1, Figure 2) extending equally on both sides, and at about eight inches from the other end, attach a similar piece, but have the latter only as long as the board is wide. Cut a slot in the center of board as shown; this is for the tripod screw, with which to fasten camera rigidly.

Now bend the quarter inch iron rod into the shape indicated in Diagram 1, Figure 3. Start with a two inch, right angle bend at one end. Measure 48 inches and make a bend in the opposite direction. Measure 12 inches and bend in same direction; then 48 inches and bend opposite again. Attach this to the under side of cross piece on outer end of camera support board, using two pieces of brass, shaped to fit. Nail on the 1/2x1 inch side guides.

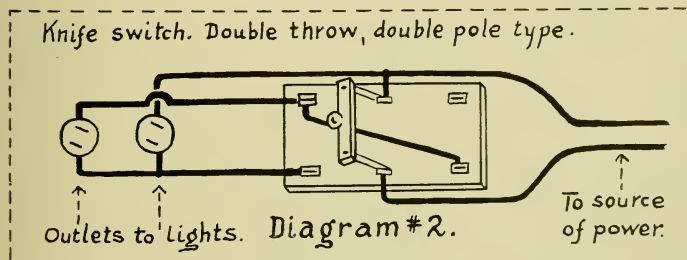
Attach this board to center of the remaining piece of 1x3, using the two 1 1/2 inch hinges. Now attach this to the BACK of uprights (see Diagram 1, Figure 4.) with the hinges facing toward the panel. Put the lower edge of this piece 1/8 inch below the bottom of panel.



And now for the most important part of the entire job, and this **MUST BE ABSOLUTELY EXACT**. Lay the outfit on the floor with the panel side up. Place the short arm of a large steel square on the panel; raise the camera support board until it is **PERFECTLY SQUARE** with the panel; mark where the iron rod legs come to, on the **INSIDE** face of uprights. When you are **POSITIVE** that this has been **CORRECTLY** done, so that the camera support board is **ABSOLUTELY SQUARE** with panel, then drill holes into inside face of uprights, as indicated in Diagram 1, Figure 5, to accommodate iron rod legs. Or if preferred, you may make these holes in separate pieces of wood and nail them to uprights, in which case you will need to bend the legs together a little. If the camera support board is not perfectly square with panel, copies will be distorted.

Put the two large eyescrews in top, stand the outfit up and drive two nails or hooks into the wall, so as to fit these eyescrews.

Put the smaller eyescrews in the sides of uprights, as shown, and







*"Galilean Fishermen"*  
Dr. George C. Poundstone

about five inches apart. Make a right angle bend in the  $\frac{1}{8}$  inch rods, six inches from the end. Attach the knife switch to the side of an upright, where ever it will be most convenient for you. Put a convenience outlet on the front of each upright, near the top.

Diagram 4 plainly shows the lamp socket and reflector assembly. The only work required on this is, to drill a hole in each brass nipple and another hole in base of each socket, the latter to accommodate the twisted lamp cord. Sockets so made can be bought in some stores.

For the best illumination use photo flood lights. But in order to lengthen the life of these, and still have enough light to focus by, a double throw, double pole, knife switch is required. This much be wired as shown in Diagram 2. Then when switch is thrown downward, the lights will be in series and will burn at only one half the regular brilliancy. Throw the switch to the opposite side for full power.

Next make the box on which to elevate camera when copying large subjects. This is about twenty-four inches long, six inches high and EXACTLY the same width, as camera support board.

If you follow directions exactly and do a careful job, you will have a most practical and convenient copying stand.

# Our Monthly Competition

Without any desire to be unkind, or to detract from the achievement of those who have won awards, but simply to be fair to our judges, it is necessary to record the fact that summer vacations have somewhat lowered the usual high standard of these competitions.

## Scoring for Club Trophy Cups

The following won points for their clubs in the Advanced Class: Julius Cindrich, for the Los Angeles Camera Club; Christine B. Fletcher, and Stanley R. Jordan, for the Photographic Society of San Francisco. Mr. H. F. Kells' points cannot be credited to the Camera Club of Ottawa since he has already earned the maximum number of points allowed an individual. In the Amateur class: Ray Kuhn for the Cleveland Y.M.C.A. Camera Club; Raymond B. Collier, and J. K. Trafton, for the Golden Gate Leica Club, and Heinz Bertelsmann for the Photographic Society of San Francisco.

## Contributing Clubs

California Camera Club	Los Angeles Camera Club
Camera Associates of Huntington	Photo Pictorialists of Milwaukee
Camera Club of Ottawa	Photographic Society of San Francisco
Cleveland Y.M.C.A. Camera Club	Pictorial Photographers of America
Fort Dearborn Camera Club	San Jose Camera Club
Golden Gate Leica Club	Schenectady Photographic Society
Hartford County Camera Club	Tulsa Camera Club

## Standing of Clubs

### Large Clubs Advanced Class

Fort Dearborn Camera Club .....	17
Camera Club of Ottawa .....	16
Pictorial Photographers of America...	13
Photographic Soc. of San Francisco...	8
Los Angeles Camera Club .....	7
California Camera Club .....	6
Telephone C.C. of Manhattan .....	4
Utica Camera Club .....	1

### Small Clubs Advanced Class

Japanese Camera Club .....	16
----------------------------	----

### Large Clubs Amateur Class

Photographic Soc. of San Francisco ..	34
Schenectady Photographic Society ...	20
California Camera Club .....	13
Golden Gate Leica Club .....	10

### Small Clubs Amateur Class

Cleveland Y.M.C.A. Camera Club .....	6
San Jose Camera Club .....	2

## ADVANCED COMPETITION

August, 1934

### List of Contributors

Jack Arnold	Samuel Grierson	Mrs. Paul H. Naschke
Eric Barnes	Erica Insfourth	James L. Noones
Floyd Burnstead	Stanley R. Jordan	R. L. Norton
Julius Cindrich	H. F. Kells	Wayne D. Ormiston
Herbert L. Daniels	Sorab J. Kharegat, A.R.P.S.	D. Schneider
Hanford H. Douglas	Philip Langdon	Dr. Max Thorek, F.R.P.S.
Christine B. Fletcher	Leslie A. Lanks	Hobart Watrous
Norman Rhoads Garrett, A.R.P.S.	June Marston	

## AMATEUR COMPETITION

August, 1934

### List of Contributors

Milton H. Abram	Heinz Bertelsmann	Robert N. Bushman
Zell Anderson	Wm. R. Bland	Roland Calder
F. M. Beckett	Hans Bothe	R. Brett Collier

(Continued on Page 397)



*"Muscats"*

*Mrs. Christine B. Fletcher*

First Award—Advance Class

■ The very charming richness of texture and tone in Mrs. Christine B. Fletcher's "Muscats" is one of the qualities that make her still life work so attractive, and for that reason we bewail the fact that it is not possible to adequately pass these along through the medium of the half-tone process. Something of this "quality" will be evident in the reproduction but to fully appreciate it one should see the original print. The fact that these prints are now available for exhibition by camera clubs, etc., will make it possible for a large number of our readers to have that opportunity. In addition to a firm, sure, and peculiarly individual technique, Mrs. Fletcher displays a masterly sense of arrangement. Notice how the circular line of the basket has been broken with leaves at the left so that it does not become too insistent, and how perfectly placed, within the picture space, is the diagonal line of the basket handle. The delicate tendrils that run out to the right add a finishing touch that is the evidence of artistic sensitivity. Cover these up with a finger and observe how necessary they are to the success of the picture.

Data: 4x5" Graflex;  $8\frac{1}{4}$ " Bausch and Lomb Tessar; 2 to 3 sec. at F:22, on Defender X. F. Pan., in M.Q. Borax, by daylight; Defender Veltura E.M. in M.Q.

## Second Award—Advance Class

■ In the original Mr. Cindrich's interesting portrait is practically life size, and this has brought home to us the necessity of viewing large prints from a reasonable distance. If this picture is looked at from a distance of two or three feet the fact that the focus falls off rather rapidly is decidedly disturbing. At a distance of six or eight feet this is hardly noticeable, and the head assumes excellent solidity and roundness. The placing of the head within the picture space leaves nothing to be desired, but we do not feel that the line formed by the contour of the models right shoulder is a particularly happy one. It would help if this line took a more diagonal direction similar to that of the other shoulder.

Data: 4x5" Korona; 9½" Graf Variable; 1/10 sec. at F:4.5, on E.K. Portrait Pan. in Örtol; E.K. Vitava Projection L #2, in M.Q.



"Claude Williams"  
Julius Cindrich

## Third Award Advanced Class



"Death of Cleopatra"

H. F. Kells

position is planned to move with a circular motion, with the eye entering at the left and moving to the right along the group of figures and then circling back to the left to the figure of Cleopatra. The lighting on the two figures at the right tends to interrupt this flow and hold the eye to the right. If these two figures are covered up you will see that the circular movement is strengthened. The highlight high up on the background also is something of a distraction.

Data: Composite print from nine negatives: Final print Defender Veltura P in E.K. D-73 with extra bromide; Composite print size 16x20" on E.K. Opal A, from which copy negative was made on E.K. Commercial film. Figure negatives on E.K. Portrait Pan; 1 sec. at F:11, with F:6.3 Agfa Anastigmat, with two 500 W lamps. Miniature setting on E.K. Portrait Pan.; 1 min. at F:32 with wide angle Carl Zeiss Tessar; one 500 W lamp with screens and reflectors. Note: Each negative was produced by straight photography the only means of control being the combination of the different elements in their proper places. The setting was built with cardboard. The marble of the Sarcophagus and the floor was photographed in a bank.

■ Mr. Kells deserves much credit for his ambition and courage in tackling this very difficult subject and high praise for the technical skill with which he has carried it out. The picture has been planned in a masterly fashion and it is with real regret that we must record that due to a number of minor points we do not feel that the picture quite "comes off".

The picture is hard to "see", and the central idea is not readily evident due to the fact that the Asp (in the hand of the kneeling figure at the left) is not strongly shown. The com-

Fourth Award  
Advanced Class



"Haj Hamid"  
Sorab J. Kharegat

Fifth Award  
Advanced Class

■ We like the alert expression, the natural pose, and the solid, well rounded head, in "David" by Stanley R. Jordan. One feels that Mr. Jordan has appreciated the charming qualities of this baby's lovely big eyes and has purposely worked to make them as telling as possible. Which brings to mind the fact that amateurs often neglect the eyes when making a lighting. Too high or too angular a light will not get into the eyes unless assisted by a reflector. The eyes are unquestionably the most expressive part of the face and the most difficult to render properly. Too much attention cannot be paid to them.

We must confess that we do not like a vignettted print. Aside from the fact that such prints strike us as being "old-fashioned" in the derogatory sense of the term, the distracting high key of the edges of the print definitely work against the establishment of that principality which is so desirable. If it is necessary to print by vignetting in order to remove some undesirable part of the negative that may be eliminated by this means well and good. Do so—then remove the negative from the enlarger, stop down, and lightly dodge in the corners of the print, using the fist to protect the parts already printed. Do not carry this dodging in too far—a faint tone is all that is wanted.

Data: 4x5" Graflex; 10" Carl Zeiss; 1/10th sec. at F:8. on E.K. Portrait Pan., in A.B.C. Pyro; 2000 W Mazda; E.K. Opal W, in M.Q.



"David"  
Stanley R. Jordan





*"Margaret"*

*Raymond B. Collerd*

**First Award—Amateur Class**

■ Mr. Collerd has done a fine job in lighting the head in his portrait "Margaret" which shows a solidity and roundness that is beyond criticism. The pose is a good one and well adapted to the features of the model. We believe that all of the short-comings of this picture may be attributed to the makers changing his mind about what the final result was to be after the negative had been made. It was apparently photographed as a full scale portrait and then printed for high key. If high key results were desired the white shirt should have been screened down when making the exposure, so that it would print through without forcing the face to too dark a tone. It is well to remember that high key results cannot be obtained by printing alone, a short scale negative is the first requirement. If the present picture were printed a bit more strongly with some dodging in of the lower right corner the result would be better. A black border seems advisable.

Data: Leica Model D; 90 mm. Elmar;  $\frac{1}{2}$  sec. at F:12.5, on Agfa Fine Grain Plenachrome in Amidol; 2 T-20 lamps; Agfa Indiatone Rough Fabric in Amidol.



"Pose"

A. B. De La Vergne

to the right and the picture would then assume rather awkward proportions. There are those who will object to the suggested trimming because it cuts off the leg. There are times when it is unwise to perform such amputations, but in this case, with the leg in very low key it seems the better of the two alternatives. In fact a much more drastic trimming might be logically defended if our purpose was simply to make the best possible picture out of the print as it stands.

Data: Two 1000 W Mazda lamps, one behind background; Wollensack lens; 1/10th sec. at F:6.3 on E.K. Portrait Pan., in Pyro; E.K. Opal H, in Amidol.

## Third Award

## Amateur Class

■ We believe that Mr. Kuhn has seen a very interesting picture in this material, but as all of us do on occasions, he has allowed himself to be intrigued by parts of his subject matter that are extraneous to the picture. In other words he has included too much. We must remember that it is seldom necessary or desirable to include the whole of an action or to show the whole of a machine so that the details of its operation are understandable. We are not making a picture of John Jones operating a certain type of machine, (that is merely record photography) but of Man and Machinery. What we must strive for then is to portray the concepts which are presented by those two capitalized words, and by their association. To put this another way around, in picture making we proceed from the particular to the universal. For pictorial purposes this man becomes the living embodiment of all machinists, this machine, all machines. Therefore it is neither necessary or desirable to show all details of operation for in so doing you limit the sweep of the imagination, limit the scope of your idea. This you will see logically conforms to that most important rule of composition—simplicity of construction. We would therefore suggest that the picture be trimmed as indicated by the fine black lines which appear at each side of the cut. A slightly stronger lighting and more brilliant printing would be more in conformity with the subject matter.



Ray Kuhn

Data: Voigtlander Avus; Skopar F:4.5; full exposure of one photoflash bulb in reflector at F:11, on E.K. standard film pack in pyro; E.K. P.M.C. #11 medium in E.K. D-72.

#### Fourth Award

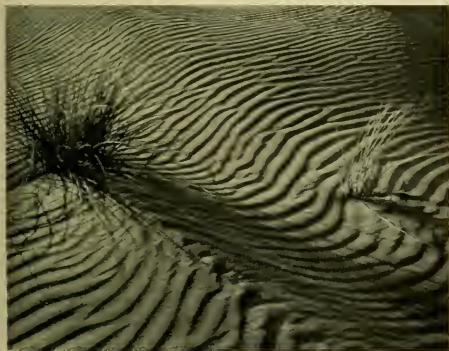
##### Amateur Class

■ The attraction of Mr. Trafton's "Russian River" lies in the interesting play of the light on the water, the fine aerial perspective, and the strong sweeping line of the river. We are well aware of the difficulty of avoiding the intrusion of unrelated tree forms into the picture space in pictures of this kind. The picture would be improved if those at the top and in the upper right were not present. We should not overlook the fact however that the dark toned branch which projects over the water just below the bend in the river performs the useful function of holding the eye in at that point when there would otherwise be danger of its slipping out. The picture seems somewhat improved with the sky area trimmed away as the eye is then not hurried toward the top of the print and the fine recession of planes is more noticeable.

Data: Leica Model D; 50 mm. lens; 1/100th sec. at F:12, on DuPont Superior, in p-phenylenediamine; Opal W, in Amidol.



"Russian River"  
J. K. Trafton



"Dunes"  
Heinz Bertelsmann

lieve that Mr. Bertelsmann has made the most of his material which is all we can ask of anyone.

Data: 9x12 cm. Voigtlander Avus; 13.5 cm. Skopar; 1/25th sec. at F:22 on E.K. Verichrome in D-7; print on Agfa paper.

AUGUST, 1934

#### Fifth Award

##### Amateur Class

■ In "Dunes" Mr. Bertelsmann discloses a most intriguing design and a print of very beautiful quality. One could wish that the two clumps of reeds were not so nearly in the same vertical plane. We would like to see the clump at the left slightly higher in the picture space and the other a trifle lower. A shifting of the camera angle would help a little in this respect but any great movement would cause the lines of the sand to run horizontally through the print which would not be desirable. On the whole we be-

# Cinema Section

Edited by

William A. Palmer

## Over-hauling Cine Film

Many is the time that the amateur cine worker finishes editing his latest opus to find that his first and last scenes really need fade-ins and fade-outs in order to give a more finished appearance. It is not very desirable to jump right into the opening scene after showing the main title and likewise the picture seems to end rather too abruptly when the "The End" title flashes in view, replacing the final scene. The problem is: how can these effects be added after the film has been processed?

There have been chemical means devised to do this—to dye the scene progressively darker until it finally becomes opaque. But this method has not been very satisfactory due to the difficulties of getting a suitable dye with a neutral tint and applying it so there will be no streaks. Furthermore, if the chemical treatment is a failure, the scene is ruined.

As suggested last month in this department, such effects as fades as well as lap dissolves and double exposures can be made with the aid of a printer on a positive film which is then treated by the reversal process, in the amateur's own laboratory. This method has many possibilities and will furnish many interesting experiments for the movie maker who enjoys such rather intricate technical work. But for the majority of us, a simple method which needs no special equipment and which may be sent to the professional labs for processing, is desirable. The following procedure will be found to be very useful in adding special effects after film has been processed. Several specific effects will be described and it will be obvious that many others can be made in a similar manner.

### Fade-in

Suppose we have an excellent scene for the start of one of our pictures, but it needs a fade-in. Having our camera at hand as well as a roll of ordinary reversible cine film, we can proceed as follows:

The scene is threaded in the camera along with the unexposed reversible film (panchromatic or orthochromatic—super-sensitive is not so good). The two films are threaded in the camera mechanism as shown in figure 1, the processed scene being next to the lens and the emulsions of the films being face to face. The threading of the films over the sprockets and through the gate had best be done in total darkness, by the sense of touch, but if this seems too difficult an ordinary darkroom safelight can be used to furnish light. This can be done when the undeveloped film roll is in any stage of exposure and a special roll does not need to be devoted to the experiment. When the start of the processed scene has been threaded in with the undeveloped film as shown in the illustration, the rest of scene is rolled in with the supply reel of unexposed film. This is done by unrolling unexposed film equal to the length of the scene and then rolling the two films back onto the reel together. If the processed film is very short, it may merely be rolled up and allowed to rest in any free space in the camera box. Many cameras, however, have little waste space and the two films will have to be rolled together. As the processed film comes off of the final sprocket, it can be tucked in with the undeveloped film on the take-up reel where it will automatically roll up with the raw film when the camera mech-

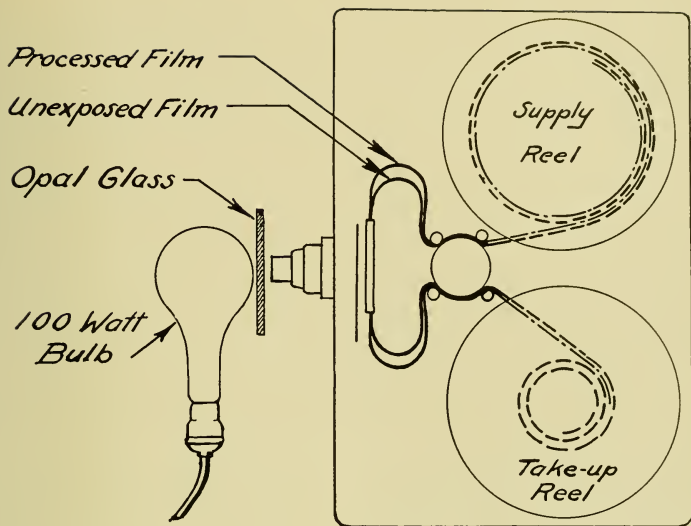


Fig. 1

anism is started. (It is advisable to use a length of leader spliced onto the processed scene for this threading operation.) Now a momentary operation of the camera mechanism will show whether the films have been threaded correctly and the camera can then be closed.

Here we have the camera fixed to pinch hit for a printing machine and in effect are going to be able to shoot the scene over again, adding the fade-in as we should have done when the scene was originally photographed. The exposure this time is made by shining the light from an ordinary incandescent lamp through the lens of the camera and controlling the amount of exposure by the diaphragm of the lens in the manner of a regular shot. Referring again to figure 1, we see the arrangement of the light as the exposure is made. A one hundred watt globe is used near the lens with a sheet of flashed opal or milk glass immediately before the lens opening to diffuse the light. The exposure is then made in this manner: The light globe is held in the hand about three feet away from the camera lens but directly in

front of it. The camera is then started and the globe moved toward the camera lens until it is right in front of it and touching the opal glass sheet. The operation of moving the globe from three feet away from the lens should take three to four seconds and should be done so that the first movement of the globe is done comparatively rapidly and the last part slowly. That is, the movement should start rapidly and then become progressively slower; the last few inches of movement just before the globe touches the opal glass should be done very slowly. During this exposure the lens should be set at  $f:5.6$ , if regular panchromatic film is used, or at  $f:3.5$  if the new fine grain orthochromatic film is used. The focus should be at infinity. This exposure may not be exactly correct, because conditions of density of the processed film from which the printing is being made and voltage which is applied to the globe may change. However, the processing machine will probably compensate for the inaccuracies and the next time, if it is found necessary, the exposure can be changed slightly. After



the light globe has been moved up to touch the opal glass plate the camera is allowed to run until the whole scene has run through. One can tell when this has happened by watching the footage indicator and knowing ahead of time the length of the scene which is being "re-made."

When the exposure has been completed, which in reality is a duplication of the previously processed scene with the fade-in added, the camera is again taken into the dark and the processed film removed from the take-up reel. The rest of the roll of undeveloped film is then left in the camera and finished up at convenience on any ordinary photography. When the roll is returned from the processing station, we have a complete new scene for the start of our picture.

### **Fade-out**

A fade-out can be made when duplicating a scene by the method which has just been discussed, the only difference being that the scene is first run almost through the camera with the light globe immediately in front of the lens and diffusing glass and then, when the footage indicator shows that the scene is within about two feet of the end, the light globe is moved away from the lens, very slowly at first and then more and more rapidly until the globe is about three feet away from the camera. At this time the fade-out will be complete.

A little practice in moving the light globe to and from the camera lens while counting approximate seconds will teach one to do this operation of progressively increasing or decreasing speed of movement within the required three to four seconds.

### **Dissolve**

One who has successfully made a fade-

in or fade-out by this method can extend the technique further in combining the two to make a lap-dissolve. In this case, the two scenes which are to be joined by the lap dissolve are selected and the first is threaded into the camera with the unexposed raw film. The exposure of the scene is made and a fade-out introduced at the end. The camera is stopped immediately, taken to the dark room, and the processed film removed while the undeveloped film is "backed up" in the camera the length of the fade-out, about a foot and a half. The other processed scene is then threaded in the camera and this exposed with a fade-in being made at the start. It can be seen that the principle of the dissolve made in this way is simple enough, but the execution is liable to take a deal of practice in order to get the "overlap" correct.

### **Moving Backgrounds for titles**

Perhaps one of the most valuable uses for this printing with a camera is the ease with which one can make titles with moving backgrounds. The processed scene over which the title is to be super-imposed is printed on the new undeveloped film which can then be re-threaded in the camera mechanism at the start of the printed scene and exposed again in the ordinary way to a title card which has white letters against a black background.

Similarly, double exposures can be made by making the first exposure by the camera printing method and then running the same film again through the camera while the second exposure is made by ordinary photography. Also, a double exposure can be made from two separate scenes, which have been previously finished, by the simple process of printing the two scenes consecutively on the same strip of unexposed raw film.

## **What'll We Shoot?**

One might say that there are just two things that make or condemn a motion picture: the subject matter and how the subject matter is presented. The method of presentation or technique of producing

the picture is subject to less variation and can therefore be discussed in more definite terms. The question of what to use as the subject is, however, just as important. The difficulty in this phase of movie work is

the sparseness of good picture ideas that are attractive to most of us who have not the time nor the inclination to make formal dramatic films of the photoplay type and yet wish to do something a bit more finished than the general run of family record pictures.

One solution of the subject matter problem for the average amateur is the building of the cinema continuity about a theme. This consists merely of choosing a subject or motif about which one makes a little motion picture essay. The story can be made without any special set-ups or properties and, indeed, need not be made from any carefully planned script, for it builds itself.

To illustrate, suppose that we are desirous of making a little picture some week end. We choose as our theme "Sunday Afternoon." This is our motif and immediately any number of possible scenes suggest themselves. However, we restrict our interest in Sunday afternoon to one question: What does the city dweller do for recreation on Sunday afternoon? From here on our picture is practically made. We sally forth with camera and attachments and wander about the town, through the parks and down to the beach, through the foreign quarter and up to the district of the aristocracy. With the telephoto lens and perhaps a right-angle finder viewing device we get many interesting close-ups of people in the act of being human. The possibilities are numberless: Playing baseball in shirt sleeves with the kiddies—Love on a park bench—Sights at the beach—Slumbers under newspapers on a park lawn.

The essay type of film is always good for a picture continuity, no matter in what location one happens to be. If one can select a good theme and restrict it to certain logical limits, one need not puzzle long over the question of what to shoot.

Here are some themes that have excellent movie possibilities:

If you are at the seashore—The Rhythm of the Waves; Things that Crawl (close-ups of shell fish, etc.); Queer Plant Life.

If you are in the mountains—Trees and Clouds; Wildflowers; Dwellers of the

Woods (deer, bear, squirrels, etc.); Mountain Birds.

If you are in the city—The City Wakes Up (scenes in the early morning); Noon; The City Dweller Goes to Work (different means of transportation used in different walks of life); The Working Man; Theater Time.

## QUESTIONS AND ANSWERS

### Question:

Why do some splices refuse to hold in spite of careful attention to scraping off all the emulsion? I have had splices in some film repeatedly come apart in spite of all precautions and the use of new cement.

### Answer:

Some types of cine film have a coating of some substance left on the back after they have been processed. This is probably some residue from the gray backing and is very apt to be insoluble in film cement. Therefore, the film must be scraped on the back side as well as the emulsion. A sand paper manicure stick is an excellent little tool to use to roughen the celluloid and remove any foreign matter.

**Question:** Why does a scene seem to "wave" at the start while being projected? The effect is as if the film were buckling in the projector gate, but the film, when examined, shows no warping or buckling.

**Answer:** The effect described is undoubtedly caused by a slight warping of the film in the camera. When a camera is put away loaded for a week or so, the film which is threaded in the camera mechanism takes a temporary set. Then when the next scene is started, the film is apt to push the pressure plate away from the aperture slightly and the film temporarily weaves in and out of the focal plane of the lens. As a remedy for this, it would be well to run off about a half a foot of film before shooting additional scenes on a roll that has remained threaded in the camera for some time.

# The Amateur and His Troubles

## Automatic Rocking Print Washer

The inexpensive washing tray illustrated here was devised to make the washing of prints and negatives easy, efficient, and economical of water.

No exact dimensions are needed for the reason that most any size of washer will work and you will want to construct yours to fit the particular conditions of your own basement or work room.

Should you want to wash many very large prints build a washer the size you need and instead of balancing it on or over tubs or tanks as shown here let it rest on a small wedge shaped fulcrum placed right on the floor and let the water waste into a floor drain.

To build the washer as photographed (Fig. 1) cut the base or bottom of the twin trays from  $\frac{3}{8}$ " plywood (15"x40" in mine) to which glue and nail, preferably

with galvanized nails, the side and end pieces of  $\frac{3}{4}$ "x3" pine. At the inside center a frame work (Fig. 2) was constructed 10 $\frac{1}{2}$ " high over which was nailed a covering of light galvanized sheet metal.

Underneath the trays and centered under and parallel to the upright center piece two strips of wood were nailed (Fig. 3). These strips were placed just far enough apart to make a loose fit over the center partition of the wife's stationary wash tubs and are to keep the washer centered at its balancing point.

Now at each outer end of the washer and an inch and one-half above the inside bottom of the trays bore or cut holes to permit the water to run out when either of the two ends are balanced down by the incoming water which of course is diverted from one end tray to the other by the up-

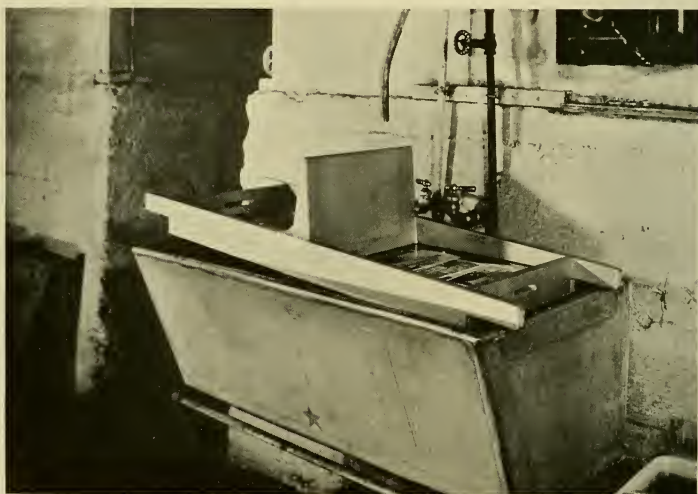


Fig. 1



Fig. 3



Fig. 2

ward projecting metal center piece.

The location and size of these holes, as you will find by a little experimenting, governs the speed at which the washer oscillates as well as the amount of water used. The projecting or extending ends of the sidepieces on the washer as shown were under-cut one and one-half inches thereby allowing the trays to oscillate a total of three inches.

After your washer is completed it should be thoroughly dried and then coated with at least two coats of a good water and chemical proof paint. This particular

washer handles up to 24, 12x16 or 60, 5x7 prints, oscillates eight times per minute using three gallons of water per minute. Those who wish to be sure of very thorough washing may bore one or two very small holes in the bottom of each tray near the outside ends. This will eliminate every possibility of hypo contaminated water remaining in the washer. It should be observed that the rate of rocking may be regulated by the volume of the incoming stream of water as well as by the size of the outlet holes.

W. H. McCullough.

### AMATEUR COMPETITORS

(Continued from Page 385)

Mrs. Isabella Connor  
Clifton Cowee  
A. B. De La Vergne  
James B. Edwards  
Frank A. Fleischman  
Mortimer Friedman  
I. L. Gartland  
Millard S. Gaut  
Johanna E. Heim  
H. C. Hertz, Jr.  
Tom J. Hopkins  
Earl Hurlburt  
Delbert E. Jack  
Ray Kuhn  
Ruth F. Kurtz

Cuyler A. Lakin  
W. Dovel Le Sage  
H. J. Lockwood  
M. Margossian  
Richard H. Mercer  
W. J. McCune  
George Minckley  
F. B. Moore  
Paul Nelson  
R. Nelson  
Don Kirby Oliver  
W. H. Orton  
Frank X. Reilly  
Rolfe L. Roberts  
W. C. Rogers

Marion Rubenstein  
Everett Rudisil  
J. W. Schuler  
Alojos Schuszler  
Alex Silverberg  
S. S. Smith  
G. M. Steed  
Walter L. Tetman  
J. C. Tinkler  
J. K. Trafton  
H. S. Ulan  
Carroll Waddell  
Rudolph H. Weber  
Wm. E. Wing  
Morris Wislin

# Correspondence

## Competition Comment

Dear Mr. Young:

The first award in the July issue by Mr. Mercer is a beautiful landscape but the utter absence of life, not even smoke from the ranch house chimney, makes it fall far short of a masterpiece.

The knoll in the right hand foreground should be toned way down to add to the feeling of distance as you indicate.

A drove of cattle or perhaps a hayrack on the road just below the clump of trees on the further hillside, which is about 1¾" to 2" in from the edge of the print will make the subject perfect.

Cattle grazing below the ranch are not quite satisfactory; the feeling of moving along the road is so strong that there must be life on the road itself and no other to detract. The dust kicked up by the animals will give a feeling of motion and the buildings of the Rancho are so brilliant that they still remain the principal point of interest.

If Mr. Mercer follows my suggestion of a file of small figure negatives, he would with a little patience, be able to turn this into a masterpiece.

The positive and combined negative is far superior to pasting in a subject and rephotographing it as some of the values are lost this way and there is a flattening out of planes.

Mr. Shimoda's "Aka Chan" is a lovely baby portrait but the trimming of the print is in bad taste.

It is true that children's portraits to pass some of our intellectual Salon Judges must be radically trimmed according to the laws of dynamic symmetry or the child must look like an imbecile, adorable sweetness is entirely out.

For a small baby the head is enormous in the space allotted to it; mainly due to the fact that the arms are trimmed too close. Show the full roundness and perhaps a ½" to spare to allow for the fine

feeling of movement and happy activity the baby portrays.

Yours very truly,  
Walter P. Bruning.

## Competition Comment

Dear Mr. Young:

..... In regard to Mrs. Fletcher's "Fruit of the Vine", p. 289 June **Camera Craft**, no doubt the picture "holds together better" if trimmed as you suggest, but I think that this would not only sacrifice its fine proportions as a whole, but would impair the composition. If the shadows of the fold in the background were extended diagonally upward and to the left so as to reach the top of the print more than half way from their present limit to the left edge, I think that would relieve the "falling off" to which you object. Also if it were possible to bring the top of the glass a trifle lower and to the left, that might improve the composition.

As to "Indian Summer," p. 291, I would add that toning down the highlights along the left edge would help keep attention within the picture.

Personally I do not agree that a landscape should always show animal — or human—life. Indeed in perhaps half the cases where it is introduced, I would prefer it eliminated. I do not think that life could be advantageously added to "California Rancho" in July **Camera Craft**, tho if inconspicuous it might not be injurious. Do not think I should place any on the road. If at all, probably the stretch intermediate between the barn and the knoll in the right foreground would be the best location.

Likely the reproduction of "An Ancient Trade"—page opposite "Rancho"—does not adequately represent the original. As it stands, I agree with the judges that the fore part of the horse should be a bit more visible. Also I think that the right hind foot is too conspicuous—it distracts attention from the true center of interest.



The only fault I have to find with "Landscape"—p. 340—is that the water looks rather milky. I should not like a figure to be added. If the water is ice covered—as it might be for all that I can tell from the cut—(disregarding the leafage on the trees) the general tone is about right.

Do not know that I can add anything to the substance of your remarks about "Sea Wings"—same page as "Landscape"—but will say that I do not like the line of white sails, and that the whole is out of balance, the lower right being crowded, and upper left vacant. . . . .

Sincerely,  
A. G. Miller.

**Exposure for Minicams**  
Gentlemen:

Compliments to you and to Mr. Jack for the article "Solving A Few Minicam Problems" in the July issue of your magazine.

In the material on exposure, appearing at the bottom of pages 320 and 321, I personally have found just the thing I have been looking for, a proper approach to the exposure difficulties of an amateur. Mr. Jack, however, presupposes a knowledge many of us do not have, and he stops just short of explaining what he means by "factoring the scale to obtain two numbers, etc., etc." I do not understand the reasons for the computations made, nor do I find these explained in the article.

As an avid reader of **Camera Craft**, may I suggest another article by Mr. Jack, enlarging on his discussion of exposure and giving us sufficient of the theory involved so that we may work out our own problems. And may I remind you that this exposure nut is a tough one for some of us to crack, so let the article appear in your pages quickly to put an end to the present waste of good negative materials.

Very truly yours,  
W.H.S.

**Mr. Jack's Reply**

Dear Mr. Young:

I hope that the following outline of procedure will answer the questions regarding my article:

First, determine the scale of the subject by taking a separate exposure meter reading for the shadows and the highlights as explained in the article. The result of dividing the shadow reading by the highlight reading (at the same stop) gives the scale of the subject. If a subject is said to have a scale of 1:120 this simply means that the light intensity in the highlights is 120 times the light intensity in the shadows.

The factors of any given numbers are those which when multiplied together give the number. Obviously a large number will have a great many possible sets of factors, however for our purpose we are interested only in factoring the scale into two numbers, of a pre-determined relationship. The desired relationship of these two numbers depends upon the scale of the subject for reasons which were given in the article. All that one need do in practice is to determine the scale of the subject and refer to the table given below to determine what fraction of the shadow reading or how many times the highlight reading will be the best exposure. It should be understood that either the given fraction of the shadow reading or the multiplying factor for the highlight reading will give identical results for all practical purposes in the finished negative. It would perhaps have been less confusing if I had mentioned only one or the other group in the article, and those who plan to use this system need not concern themselves with both parts of the factors. You may choose to arrive at all your exposures by taking the fraction given in the table for the shadow reading for subjects of that scale and disregard the multiplying factor for the highlight reading entirely, or vice versa, you may use the multiplying factor for highlight readings and disregard the other set entirely.

Scale of Subject	Multiplying Factors	
	Shadow Exposure	Highlight Exposure
120 or greater	1/8	15
100 to 120	1/8	12
80 to 100	1/8	10
60 to 80	1/8	8

40 to 60	1/7	6
20 to 40	1/5	4
10 to 20	1/4	2½
Less than 10	1/3	2

formation you may be able to give, I remain

Very truly yours,  
J. H. Knickerbocker.

Shidzuoka Vellum is carried in stock by the Los Angeles branch of the Zellerbach Paper Co., 220 So., Los Angeles St., Los Angeles, Calif. Strathmore papers by the same firm's San Francisco branch at 543 Battery St., San Francisco, Calif. Paper may be ordered direct or through the firms branches throughout the country.—Ed.

### Purism

Ye Editor  
**Camera Craft**

Enuf of this apologizing for purism in photography. And enuf of this bellyaching about imagination in pictures.

Mortensen makes fine warm pictures (he writes in the same style too). Adams has a splendid but selfless technique (he writes cold and brittle too). They represent, perhaps, the extremes of view point.

I like some of each man's photos, and heartily dislike some by each. They represent two schools of thought like Rembrandt and Maxfield Parish; or two comparable mediums of expression like roto-gravure and halftone. If it were not for such differences all our exhibits would be mere collections of pots and pans only, or of portraits of Mulattos, or of chunks off of buildings, or of stubby female nudes. And monotony and satiety would reign.

Would most disrespectfully suggest that each of us look about and see if we cannot start a school of our own. I may be stubborn, but if I like a picture, it is good —by definition. If I don't like it, its just rotten — by definition. It doesn't **much** matter how it was made.

Said Vulcan to Venus: "Some of these Greeks do pretty good masculine nudes in marble. Will you, my dear, take this camera contraption and see if you can make me look like something, in the all-together."

"Bosh, and Nonsense. Stick to your forge."

"Well, let's try it once. It will be something new that hasn't been done before."

—M.H.S.

It should be further understood that this system of exposure is a compromise based on the fact that a great proportion of pictures fall in the long scale class, and that it is necessary for the miniature worker to develop a roll of film for a single developing time. If varying developing times were possible, the proper way to handle short scale subjects would be to shorten exposure and over develop. Thus short scale subjects exposed and developed as described in the article will yield very flat negatives that will require a contrast paper for printing. Occasionally I have obtained negatives that were so flat that they could not be satisfactorily printed without intensification.

Readers are urged to realize that this system has no relevance except in relation to the developing time, and developer mentioned in the article, although other developers of similar action might be used. It is not put forward as a general system of exposure and development—but as a compromise—an attempt to steer a practical middle course through the exposure and development problems besetting the minicam.

Sincerely yours,  
Delbert E. Jack.

Editor of **Camera Craft**  
San Francisco, Calif.

### About Papers

Dear Sir:—

I was very much interested in the article in the June issue of **Camera Craft**, entitled How It Was Done, by Walter P. Brunning.

Will you kindly advise me where I may obtain the Shidzuoka Vellum paper which he mentions in his paper.

I should also like to know where the Strathmore papers may be obtained in San Francisco.

Permit me to congratulate you upon the general excellence of **Camera Craft** under your administration. The improvement has been very great.

Thanking you in advance for any in-

# Club Notes

## Forthcoming Exhibitions

■ **43rd Annual Toronto Salon of Photography.** Address W. H. Hammond, Sec., Toronto Salon of Photography, 2 Gould St., Toronto, Ont., Canada. Limit 4 prints Pictorial Section, 5 prints Scientific Section. Entry fee \$1.00. Closing date August 1, 1934.

■ **79th Annual Exhibition of the Royal Photographic Society.** Address, Secretary, Royal Photographic Society, 35 Russell Square, London, W. C. 1, England. Limit 4 prints, mount sizes 12"x16" or 16"x20". No entry fee; postage must be sent for return of prints. Closing date August 10, 1934.

■ **Third International Photographic Salon of Hong Kong,** September 24th to 30th, 1934, organized by the Hong Kong University Amateur Photographic Club. Entries close August 24th, 1934. Entry forms are obtainable from the **Camera Craft** office, and further particulars from the Hon. Secretary, Hong Kong University Amateur Photographic Club, Hong Kong University, Hong Kong.

■ **London Salon of Photography.** Address, Hon. Sec. 5 Pall Mall, East London, S. W. 1, England. Limit 6 prints, entry fee 5 shillings, closing date August 30th. Mount sizes, 12x15", 16x20", 20x25".

■ **The Victorian International Salon of Photography.** Address C. Stuart Tompkins, A.R.P.S. Sec., Junction, Camberwell, E.6, Melbourne, Victoria, Australia. Entry fee 5 shillings, limit four prints. Closing date Sept. 18, 1934. Packages for entry into Australia must not exceed 16"x16" or 4½ lbs.

■ **International Exhibit of Professional Photography.** Address G. E. Newton, Secretary, Professional Photographers Association of Victoria, 243 Collins St., Melbourne, Victoria, Australia. Entry fee 5 shillings, remit as money order payable to G. E. Newton, Post Office, Melbourne. Entries accepted from professional photographers only, limit four prints. Closing date Sept. 18, 1934. Sizes as above.

■ **North American Continental Salon of Pictorial Photography.** Address William Clayton Pryor, Salon Director, 60 Latta Ave., Columbus, Ohio. Closing date not yet announced.

■ **45th Annual International Exhibition at Rotherham.** Address, E. George Alderman, Hon. Sec., Ruardean, Newton St., Rotherham, Eng. Closing date, Sept. 24th, 1934.

■ **Third Annual Minneapolis Salon of Photography.** Address R. W. Burnet, Minneapolis Camera Club, 260- Euclid Place, Minneapolis, Minn. Entry fee \$1.00, limit 4 prints, closing date, Nov. 12, 1934.

■ **Sixth Chicago International Photographic Salon.** Address, Salon Committee, Chicago Camera Club, 137 No. Wabash Ave., Chicago, Ill. Entry fee \$1.00, limit four prints, mount sizes 14"x18" and 16"x20", closing date Nov. 1, 1934.

■ **8th International Christmas Salon of Photography.** Address Mr. Em. Borrenbergen, Dambruggestraat, 265, Antwerp, Belgium. Entry form and entry fee of 5 Belga should be sent to Mr. J. Van Dyck, Sec. of the Fotografische kring Iris, Ballaerstr. 69, Antwerp, Belgium, before Nov. 15, 1934. Closing date Nov. 15, 1934.

## Miniature Camera Salon at World's Fair

The Miniature Camera Club of Chicago has arranged for an exhibition of Amateur Miniature Camera photographs, in the Hall of Photography at the Century of Progress Exposition, August 31st to September 7th. All entries are strictly limited to photographs taken with a miniature camera by amateur photographers. The subject matter is limited to pictures taken within the grounds of the 1933-1934 Cen-

tury of Progress Exposition. Photographs to be exhibited will be selected by a competent jury, men of known ability and impartiality.

Awards will be made for prize winning pictures, on Friday night, August 31st, at which time the Miniature Camera Club of Chicago will hold its regular monthly meeting. The meeting is to be in the auditorium of the Hall of Photography at the Century of Progress Exposition.

Dr. George C. Poundstone, President of the Chicago Camera Club will be the guest speaker of the evening. His subject is sure to be of interest to all attending. A special tour of the various photographic exhibits will follow the lecture. Anyone or any group desiring Entry Forms for the coming exhibit may obtain same by writing to the Miniature Camera Club of Chicago, Stevens Hotel, 7th and Michigan Avenue, Chicago, Illinois. If resident of Chicago or near vicinity, see your dealer or obtain an Entry Form at the Hall of Photography (Hall of Science Building) Century of Progress, Chicago.

### U.C. Extension Courses

Announcement of courses of instruction in Photography of interest to readers of **Camera Craft** is made by the University of California Extension Division.

San Francisco classes, to be held in the Extension Building, 540 Powell Street, include:

"Photography: Principles and Practice," starting Thursday evening, September 20, at 7 p.m.

"Photography: Principles and Practice (Advanced Course)," starting Monday evening, September 17, at 7 p.m.

"Photography: Darkroom Technique," starting Tuesday evening, September 18, at 7 p.m.

Oakland courses will be given in the Oakland Extension Center, 1730 Franklin Street. They include:

"Photography: Principles and Practice," starting Wednesday evening, September 19, at 7 p.m.

"Photography: Principles and Practice (Advanced Course)," starting Friday evening, September 21, at 7 p.m.

Instruction will be given by Mr. P. Douglas Anderson, Associate of the Royal Photographic Society. Mr. Anderson is well known in the Bay region for his work in photography, and has played an active part in the profession for more than a quarter of a century.

### Chronicle-Hales Bros. Contest

First prize in the Chronicle-Hale Bros. contest for high school students was won by Marshall Moxom, of the Polytechnic High School. Honorable Mention was

given to Bernard Croninger of the same school. The prize was a high grade camera. The Chronicle and Hale Bros. are not only conducting contests but are sponsoring a club for the students and providing them with meeting place and expert instruction through the medium of competent speakers on photographic subjects. Mr. John Paul Edwards, whose photographic fame is widespread has taken a leading part in the work. The jury of selection for the above awards consisted of Mr. P. Douglas Anderson, A.R.P.S., Mr. W. E. Dassonville, Mr. John Paul Edwards, and Mr. George Allen Young.

### Indianapolis Invitational Club Exhibit

Last month we announced that the Warren Monk Trophy in the Indianapolis Camera Clubs Invitational Club Exhibit had been won by the Chicago Camera Club. We regret that due to an oversight we failed to mention that Honorable Mention had been given to the Photographic Society of Philadelphia, and the Japanese Camera Pictorialists of California. Our congratulations to these two clubs for a notable achievement.

### First New York Salon for Utility Employees

The Telephone Camera Club of Manhattan, 140 West St., New York, N.Y., issues the following announcement:

At the last meeting the Club voted to participate in sponsoring, jointly with the other utility employee camera clubs of the city, The First New York Photographic Salon for Utility Employees. The Salon will be held in November of this year and any employee of a utility company, or of any company affiliated with a utility company, whose place of business is within 50 miles air line of New York City may submit prints. The last day for prints is October 15, 1934.

The following Clubs besides our own are participating:

Brooklyn Edison Camera Club  
Brooklyn Union Gas Camera Club  
Shutter Club, Consolidated Gas Co.  
New York Edison Camera Club  
The Telephone Camera Club of Long Island.

All persons who know of a utility em-

ployee camera club not listed above are urged to tell the Secretary about it.

#### **New Club to be Formed in Oakland, Cal.**

An organization meeting for a new club embracing all types of still cameras will be held at 683 Brockhurst St., Oakland, Calif., at 8 P.M., Aug. 3, 1934. All those interested in photography as a hobby or art are urged to attend. Any one desiring further information should communicate with Mr. William Holgers, 1030 Delaware, Berkeley, Calif., Phone BErkeley 7801 J.

#### **The Cleveland Photographic Society, Inc. Miniature Negative Division**

The **Miniature Negative Division** of The Cleveland Photographic Society was organized about one year ago, by a very small group of enthusiasts interested in the baby cameras. Growth since that time has been steady, practically every month witnessing an increase in membership.

Members of the division have purchased and installed in one of the club dark-rooms an efficient enlarger for the small negatives. It is planned to add other items of specialized equipment from time to time, in the belief that this will encour-

age the purchase of miniature cameras by some who may be hesitating at the cost of the additional equipment needed for their successful use.

Regular meetings are held the second and fourth Thursday of each month, in the Club Rooms at 2073 E. Fourth St., at 8 P.M. Special meetings will be held from time to time for hikes, etc., and are announced in the club bulletin.

The first regular meeting of each month is devoted to print criticism; the second to discussions and demonstrations of technique. Prints receiving favorable criticism at the first meeting each month are entered for the general print criticism of the entire club, held on the third Wednesday of each month. The quality of prints submitted has been improving and this group has a good representation in the annual Members Show of the society.

Membership in this group is open to all members of the Cleveland Photographic Society who are interested in the use of the tiny precision cameras, whether actually owners or not; and visitors from outside the club membership are welcome at all meetings of the group.

## **Notes and Comments**

### **Kodalk—New Alkali**

The alkalis most commonly used in developers are sodium carbonate and borax. Carbonate has the objectionable property of reacting with acids to form carbon-dioxide gas. When a film saturated with developer containing carbonate is immersed in an acid hardening solution or in an acid fixing bath, bubbles of gas form in the gelatine. If the gelatine is warm and soft, this gas pressure forms blisters. The second commonly used alkali, borax, forms no bubbles but it is a weak alkali, satisfactory only for developers of limited activity.

The Eastman Kodak Company through its Research Laboratories has developed a new alkali, Kodalk, which is more alkaline than borax and slightly less than carbonate. It does not contain carbonate,

does not evolve a gas in contact with acid, and therefore can not produce blisters.

In addition to this valuable property, Kodalk has the following advantages. (1) The degree of development and the time required to obtain a desired contrast may be modified by varying the quantity of Kodalk in the recommended formulas. With carbonate developers this is not recommended, because small changes in carbonate content produce large changes in activity with developers in common use. (2) The life of the average potassium-alum fixing bath is extended because Kodalk developers have much less tendency than carbonate developers to precipitate an aluminum-sulphite sludge in the fixing bath. This sludge tends to deposit as a white scum on the film surface, and therefore is one of the chief difficulties encountered with carbonate



developers. (3) Kodak dissolves readily in water and does not tend to cake when added to water. (4) It keeps satisfactorily in a well covered container.

It is recommended that the following Kodak formulas be used in preference to old formulas with carbonate replaced by Kodak. Kodak is not recommended for pyro developers or for use with papers.

The following formulas are recommended for developing roll film, film packs, sheet film, and plates:—

#### Approximate Development Time at 65°F.

**All films and plates except Panatomic**

Formula DK-50 (deep tank or tray) 10 to 14 minutes. **Panatomic**, 5 to 7 minutes.

**All films and plates except Panatomic**

Formula DK-76 (fine-grain tank or tray) 15 to 20 minutes. **Panatomic**, 10 to 15 minutes.

#### Tank or Tray Developer DK-50

	Avoirdupois	Metric
Water (about 125°F. or 52°C.)	16 ozs.	500.0 c.c.
Elon	36 grs.	2.5 grms.
Sodium Sulphite, desiccated (EKCo.)	1 oz.	30.0 grms.
Hydroquinone	36 grs.	2.5 grms.
Kodak	145 grs.	10.0 grms.
Potassium Bromide	7 grs.	0.5 gm.
Cold water to make	32 ozs.	1.0 liter

Dissolve chemicals in the order given

#### Fine-grain Tank or Tray Developer

##### DK-76

Water (about 125°F. or 52°C.)	16 ozs.	500.0 c.c.
Elon	29 grs.	2.0 grms.
Sodium sul., dessic. (EKCo.)	3 oz. 135 grs.	100.0 grms.
Hydroquinone	73 grs.	5.0 grms.
Kodak	29 grs.	2.0 grms.
Water to make	32 ozs.	1.0 liter

Dissolve chemicals in the order given

#### The New Focomat Enlarger

E. Leitz, Inc., 60 East 10th St., New York City is announcing a new autofocus enlarger for miniature negatives known as the FOCOMAT. It resembles the popular VALOY Enlarger, and accommodates all small negatives up to 3x4 cm. The big feature of the FOCOMAT is the autofocus arrangement by means of which enlargements from 1½ to 10 diameters can be made with the full assurance that the image is in absolute sharp focus.

As with the VALOY, the FOCOMAT permits LEICA Camera 50 mm lenses (ELMAR, HEKTOR, and SUMMAR) to be used as enlarging lenses, hence the enlarger may be purchased without lens. This permits the LEICA owner a decided economy in the purchase.

The FOCOMAT is easily and quickly

adjusted for the autofocus feature, and once a lens has been adjusted in it, no further attention need be given the outfit, even though the lens may be removed and re-inserted at will—the adjustments remain the same.

There are only two positions for the enlarger supporting arms which carry the lamphouse. These are indicated by two holes in the upright pillar. The top one indicates the position for the enlarger when the standard paper easel is used, and the lower one for instances where no easel is employed.

The ease and certainty of the autofocus enlarger is well-known, and miniature camera devotees will be glad to know that at last there is such an enlarger incorporating the special optical system most practical for their tiny negatives.

Literature on the new FOCOMAT may be secured by writing to E. Leitz, Inc., or better still, visit your local dealer and see this new creation. Western agents, Spindler & Sauppe, Inc., 86 Third St., San Francisco, 811 W. 7th St., Los Angeles.

#### Photoscop

In size the new Photoscop, photo-electric exposure meter, is little more than a good sized watch, and of the same shape, being 2½" in diameter and about an inch thick. In operation one simply looks down upon it as one would look into the ground glass of a reflecting camera and in this position all the figures of the meter can be seen, so there is never any need to turn it about.

The accuracy of the meter is enhanced by the fact that by use of a collecting lens and a system of gratings in front of the sensitive cell, the angle of view is kept small. Thus the meter is practically unaffected by any light coming from beyond the boundaries of the scene.

Scheiner speed ratings are used and the instrument is calibrated for both the English and the Continental diaphragm stop series.

The meter may be used both indoors and out as will be seen from the fact that on the main scale it will give readings from 1/1000th sec. to 100 seconds, and on the auxiliary interpolation scale down to 2500

seconds at F:64 for a film speed of 26 Scheiner. This is surely a wide enough range to cover almost every photographic need. Two little windows appear at the top of the meter. In one is seen the stop value and in the other the exposure. The meter may be set for any given stop and the proper exposure read directly at the other window or the procedure may be reversed and the meter set for a chosen exposure and the stop read directly.

One must see and operate one of these excellent meters in order to fully appreciate it. Be prepared for a treat when you call at your dealers and write to Photo Utilities, 152 West 42nd St., New York, N.Y., (U.S. Distributors) for full information.

### **Tabloid Toners**

Toners are something which the majority of us use only on special occasions, and in addition to this several of the useful formulae are somewhat tricky to compound. In view of these facts we believe it is not only economical but distinctly soothing on the nerves to purchase ones toners made up ready for use. The Burroughs Wellcome Co., 9-11 E. 41st., New York, N.Y., offer an excellent line of prepared toners and numerous other prepared photographic formulas, and have a number of interesting and instructive pamphlets describing the uses of their products. Your dealer will carry the chemicals and you will not regret writing for the pamphlets.

### **Boritol Developer**

The above name designates a nicely balanced, moderately fine grain developer, of M.Q. Borax base with good keeping qualities, recently placed on the market by Burleigh Brooks, 127 W. 42nd St., New York, N.Y. A tube making up to 32 ozs. sells for the very reasonable price of 15c. Your dealer will supply you—try it out for yourself.

### **Lyflat Prevents Curl**

Those who are bothered by curling prints are advised to try Lyflat, a product of the Defender Photo Supply Co., Rochester, N.Y. The solution will also prevent sticking to tins and drying surfaces, and conditions the print to withstand

frequent handling. It may be used with either single or double weight paper and has been found useful in improving the print surface for water coloring, and for embossing and die sinking. Your dealer will supply or a \$1.00 bill to the above address will bring a trial quart bottle postpaid.

### **Robert Wold Visits San Francisco**

We recently had the pleasure of a brief visit with Robert Wold, young, energetic Secretary-Treasurer of the Wold Air Brush Manufacturing Co. Wold air brushes have served the photographer for many a day and continue to be pre-eminent in their field. Mr. Wold is engaged in making a business tour of the country and has traveled west by the southern route and plans to return home via Salt Lake and the Lincoln highway.

### **Santa Claus Visits the Clubs**

At the present time Santa Claus in the person of the Weston Electrical Instrument Corp. is paying a visit to about twenty-five fortunate clubs throughout the country. These clubs have been selected on the basis of their activity, size and geographical considerations and to each the company is offering one model 617 Type 2 Weston Exposure Meter. The meter is to be used as first prize for a club print competition under such rules as each club may decide. The company asks only for a print of the winning picture with the makers name and address. Our congratulations to the fortunate winners—they will have obtained a most valuable aid to their photographic endeavors.

### **Camera Hospital**

The new phone number of the Camera Hospital is SUTTER 3324. During a recent visit to the work rooms Bill Peters showed us the new Direct Positive Camera which he is now making to order. The camera utilizes Eastman Direct Positive Paper in 250 ft. rolls and makes a picture  $1\frac{1}{2} \times 2$ ". For those not familiar with this type of camera we explain that the exposure is made direct on to the sensitized paper which will later constitute the final print. The exposed paper is then put through the reversal process so that a positive is obtained on the same paper

that was exposed in the camera. Processing is very simple and rapid, a set of four prints can be delivered to a customer two or three minutes after the exposure has been made. A number of Mr. Peters customers are doing a nice business in "pictures while you wait" at resorts and other likely locations for this type of work. The great economies that are inherent in this system make it possible for an operator to deliver a set of four prints for the price of 10c and retain a reasonable margin of profit. Write to the above firm at 717 Market St., San Francisco, Calif., for full details.

#### **Wm. M. Rittase to Instruct at Temple University**

As one further sign of the growing position of photography we learn that the Extension Division of Temple University, Philadelphia, Pa., will include a course in photography in their fall curriculum which will be conducted by no less an individual than Mr. William M. Rittase. We feel that students are particularly fortunate to be able to study under Mr. Rittase for his qualifications and experience should make him an excellent instructor. He has been conspicuously successful in each of the three main fields of activity embraced by photography, namely, the artistic, the technical, and the financial. Anyone interested in these courses should communicate with the Extension Division, Temple University, Philadelphia, Pa.

#### **Enlarg-O-Charts**

Here is a very useful little gadget for the amateur who is having difficulty determining just what contact or enlarging paper he should use to print a given negative. It consists of a film upon which appear negatives of varying degrees of contrast. All one need do in practice is to compare his negative with those in the chart. The chart then gives the proper grade of paper to be used with that negative. There are three charts in all. The Neg-A-Chart, shows six degrees of contrast, one for each of the six grades of contact paper available. The Enlarg-O-Chart contains negatives of four degrees of contrast and is made for use with enlarging papers. There are two of these.

One for general views and one for Portraits. Distributors are Willoughby's, 110 W. 32nd St., New York, N.Y. For Southern California, Craig Movie Supply Co., 1031 So. Broadway, Los Angeles, Calif.

#### **The Camera Shop**

It may not be very big as far as floor space goes, but it does a big business and the reason is the warm and cheery welcome extended to all by Mrs. Alice Argus Brady, from behind the counter. She can tell you what you want to know about photographic goods and is always happy to do so. The address is 145 Kearney St., San Francisco, Calif.

#### **Four Agfa 16 MM. Films**

The Agfa Ansco Corp. is now offering to the amateur movie fan four excellent films which between them are capable of taking care of the photographers' every need. Three of these are reversible films and the fourth is intended for negative-positive work.

Movie makers are already familiar with the Reversible Panchromatic and the Reversible Fine-Grain Superpan films the two new films in the line are the Reversible Fine-Grain Plenachrome and the Panchromatic Negative Film.

The Fine-Grain Plenachrome brings to the movie field all of the fine qualities that have made it so popular among "still" photographers, and in addition is cheaper in price than the other reversible 16 mm. films, selling \$2.50 per 50 ft. and 4.50 per 100 ft. including processing. This is an orthochromatic emulsion with anti-halo coating and as such is particularly desirable for out-door work. In daylight its speed is approximately the same as Reversible Pan., but one should understand that under artificial light it will not be as fast as the Pan. film. We have seen some very splendid results achieved with this film. Try it out for yourself. From your dealer or the nearest Agfa branch or direct from Agfa Ansco Corp., Binghamton, N.Y.

#### **Probus Paint**

Nothing can be more useful around the darkroom and nothing can do more to prevent the appearance of spots and stains of great variety than the habit of making

frequent use of a water and chemical proof paint on darkroom utensils. For this purpose one can ask for nothing better than the famous Probus Paint—a photographers friend of long standing. Obtain a can from your dealer, or write direct to the manufacturers, Wolff & Dolan, 239 Grant Ave., San Francisco, Calif.

### **Famous Press Photographer Tells How It's Done**

Jack Price, well known news photographer and author of the popular book "News Photography," is the most recent of a number of well known authorities in the photographic world to prepare special instruction material for Universal Photographers' training course in Journalistic Photography.

According to Herbert C. McKay, F.R.P.S., editor-in-chief of Universal Photographers, Mr. Price has supplied material which makes a most interesting and instructive addition to the course, especially for those whose main ambition is to engage in straight newspaper photography.

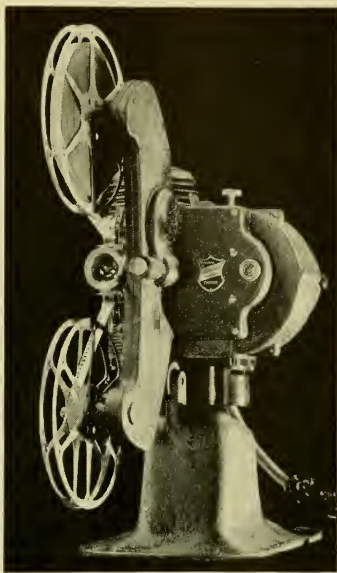
Universal Photographers offers complete instruction in making and marketing publication photographs of all kinds, including photographs for magazines, advertisers and newspapers.

Full particulars are contained in an illustrated booklet, "How To Make Money With Your Camera," which will be sent free if you'll just drop a post card to Universal Photographers, Inc., 10 West 33 Street, New York City, mentioning **Camera Craft**.

### **Bell & Howell Announces Filmo 8 mm. Projector**

An 8 mm. motion picture projector, the Filmo 8, that will throw steady, flickerless, and beautifully brilliant pictures on a screen five or six feet wide, has just been announced by the Bell & Howell Company.

The new projector employs a 300-watt lamp in a most efficient direct lighting system, and operates on 110 volts, A.C. or D.C. Except that it is smaller, it looks like the very finest Filmo 16 mm. projector, the Model J; and it is built just as precisely and is just as rugged as its 16 mm. big brother. Film sizes considered,



**The New Filmo 8**

it performs just as efficiently — and so simply that anyone can learn to operate it in a few minutes.

It is gear driven—there are no chains or belts inside or outside. Among many other superlative features, it has an automatic power rewind, pilot light, convenient tilt, manual framer, provision for still picture projection, Cooke 1-inch F1.6 (unusually fast) projection lens, and adequate cooling for efficient, economical use of the high-powered lamp. Its capacity is 200 feet of 8 mm. film. The film is fully protected at every point of contact.

This new Filmo 8 is a genuinely efficient projector for 8 mm. film. The size of the pictures is as large as is necessary for almost any home showing, and the quality of the projection is a source of real delight for those who have gone in for 8 mm. movie making and want to get the ultimate out of their films.

See it at your dealers or write direct to Bell & Howell Co., 1801 Larchmont Ave., Chicago, Ill.



# Classified Advertisements

This is purely a convenience department for the reader and for that purpose offers Classified Advertisements at cost. 4 cents a word; minimum \$1.00 each insertion. Dealer merchandising ads must be placed in display space at 30 cents per agate line, 10 agate lines minimum. Position Wanted ads, one insertion free. Copy for this department must reach us on or before the 15th and in every case be prepaid.

Items advertised in these columns may be purchased C.O.D. subject to examination and C.O.D. subject to ten days free trial if sent by express. If in doubt, safeguard yourself.

## OUTFITS FOR SALE

◆Icurette D Camera, Vest Pocket Icurette, both with 4.5 Carl Zeiss Tessar Lens, Compur Shutter, Case, Simplex Typewriter, Enlarger, reasonable, particulars stamp. James Lund, Shawano, Wis.

◆Cine-Kodak, Model "K." f:1.9 lens, black carrying case, with model "C" Kodascope projector. Both same as new. REAL BARGAIN AT \$125.00. Examination privilege. F. D. Stoll, 104 W. Chestnut St., Louisville, Ky.

◆3A Eastman Special, like new condition, \$20.00 (list \$65.00). 3 1/4 x 4 1/4 Century, with film pack and double plate holder \$10.00. Will trade. Chas. Bates, Vassar, Mich.

◆New (used once) Zeiss Ikon 9x12 Maximar Camera, Carl Zeiss f:4.5 Tessar, Compur Shutter, F. P. A., 3 P. H., Distar lens, leather case, cost \$63.50, sacrifice \$40.00. H. T., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆4x5 Graflex D; cut film magazine; case; f:4.5 7 1/2" anastigmat, K2 filter; Dallmeyer f:4.5 14" Telephoto, filter, sunshade; Dallm Tank; Cut film tank; Practically new. Sacrifice \$160.00. M. H., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆Stereoscopic camera; pair Zeiss f:6.3 anastigmats; uses plates, roll, and cut film; case; straps; finest condition; sacrifice for \$13.50. B. Klusen, 1529 Ridge Ave., Philadelphia, Pa.

◆6x13 stereoscopic outfit, including Heidoscop with Zeiss f:4.5 lenses and carrying case, film pack adapter, roll holder, plate magazine with plate, film and autochrome septums, Ducar filters, Proxar lenses, Ramstein filters, transposing printing frame and Taxphote Viewer. Excellent condition, \$200.00. Arthur Synnestvedt, Bryn Athyn, Pa.

## 16MM AMATEURS ATTENTION

Two dimes bring 3 usable, animated "The End" titles and literature. BEN B. DOTY, 3386 Virginia Ave., Lynwood, Calif.

## Miniature Camera Fans

Trade in: (1) Your camera on the Leica F with F 2 Summar. (2) Your enlarger on the Focomat Automatic enlarger. Liberal allowances.

MINIATURE CAMERA SHOP  
1600 Post St., San Francisco Ph. WA 4484

◆2 1/4 x 3 1/4 Zeiss Ikomat roll film camera, Carl Zeiss F:4.5, new style Compur shutter, 1 to 1/250 second, case, filter, list \$53.00. Sell for \$25.00. H. T., c/o Camera Craft, 703 Market St., San Francisco, Calif.

## POSITIONS WANTED

◆Want to become assistant to live-wire photographer. Am young, married, industrious, alert, experienced in business and in free-lance photography. Box 1952, Dallas, Texas.

◆Wanted, position by a young man in the Puget Sound Area or British Columbia. 12 years experience in all around work including Kodak Finishing. Will start for a very small salary. Can give references that I am a careful worker. Will accept a position for the summer or part time. Homer Sylvester Wyatt, 2514 - 3rd Ave., Seattle, Wash.

## OUTFITS WANTED

◆4x5 Graphic with or without lens also Leica model "D." Hastings, 6615 Santa Monica Blvd., Hollywood, Calif.

## FOR SALE AND EXCHANGE

◆Sell or Trade the following, in fine condition. R. B. Graflex type "B," f:4.5 Kodak lens, film pack adapter and case, 2 1/4 x 3 1/4 at \$50.00 and 3 1/4 x 4 1/4 at \$75.00. Ica Ideal 2 1/4 x 3 1/4 with film pack adapter and C. P. Goerz Dagor lens at \$40.00. Carl Zeiss f:4.5 Tessar 8 1/4" with barrel and Illex Acme shutter \$60.00. Want high grade binoculars or Stereo camera. L. F. Holmes, 2110 Beaver Ave., Des Moines, Iowa.

GOOD ALLOWANCE for Firearms, Microscopes, Binoculars, and Celestial Telescopes, on any photographic equipment, motion picture or still, and Bausch & Lomb Spotting Scopes, and Binoculars.

NATIONAL CAMERA EXCHANGE, 5 South Fifth Street, Minneapolis, Minn.

## CINEX 16 MM. FILM

Regular speed — 100 ft. \$3.25; 50 ft. \$1.75. Nonhalation supersensitive Panchromatic for night shots, interiors and exteriors 100 ft. \$4.50. Processing in San Francisco included. Send for Sample. CINEX FILM LAB., 221 Golden Gate Avenue, San Francisco.

Please mention Camera Craft when corresponding with Advertisers



# C A M E R A



"Industrial"

1st Salon of Pure Photography

Nach



# CRAFT

REG. U. S. PAT. OFFICE

**SEPTEMBER 1934**  
**VOL. XLI Number 9**  
**SAN FRANCISCO**  
**• CALIFORNIA •**  
**PRICE 20c**



## In This Issue

**PICTORIALISM FOR MINICAMS . William Mortensen**  
**SALON OF PURE PHOTOGRAPHY . John Paul Edwards**  
**PHOTOFLOOD PORTRAITURE . . Albert K. Wittmer**

Beginning with the October, 1934 Issue  
(September 25th, 1934)

*The subscription price of*

# CAMERA CRAFT

*will be*

**\$2.50 a year - 25 cents a copy**

**\$3.00 Foreign - \$3.10 Canada**

Mounting costs of production and the desire to give our readers the best, compel us to adopt this new schedule.



Subscriptions up to September 25th, 1934, will be accepted at the present rate:

*One year*

**\$2.00 U. S.**

**2.50 Foreign**

**2.60 Canada**

*Two years*

**\$3.00 U. S.**

**4.00 Foreign**

**4.20 Canada**



*At your dealers or*

**CAMERA CRAFT PUBLISHING COMPANY**

703 Market Street

San Francisco, California





*"Sharazade"*

*Fred R. Archer*

*4th San Diego Salon*

# Notes On The Miniature Camera

William Mortensen

## About the Paper Negative

THERE are probably two hundred thousand miniature cameras at present in use. These represent the ultimate refinement of the experience and labours of the most skilful makers of optical apparatus in the world. Hundreds of miles of film pass through these cameras annually, and millions of exposures are made. But despite this tremendous expenditure of materials and energy, the pictorial output is amazingly small. The mountain has indeed laboured, but to date nothing so lively and prolific as the proverbial mouse has made its appearance. There are occasional creditable pictures made from miniature negatives, to be sure; but when compared with the colossal effort, the showing is not impressive.

As a *tour de force* of camera engineering the miniature instrument seems to exert a strange compulsion with many of its users to linger unduly over the technical aspects of their craft, with a proportionate disregard of the fact that the true end and aim of photography is the making of pictures. Light meters, thermometers, chronometers, logarithms, graphs and higher mathematics have converted minicam photography into a sort of scientific black magic. Amateur photographers assume the manner of initiates performing mysterious rites at the dark of the moon, mumbling gamma factors as they compound their developers. Snapping the shutter becomes a ceremony, and developing the negative, a sacrament. But at this point, apparently, the fine ecstasy exhausts itself; for nine out of ten minicam owners seem to be content for their final result with a perfunctory bromide enlargement of the most bromidic character.

Even the best workers are inclined to distrust all types of "processing". No doubt they fear the loss, through processing, of definition and gradation, virtues which they rightly treasure very highly. As a matter of fact, miniature negatives may be processed, as I have discovered



through my own experience, without serious loss of gradation, and with an apparent gain in definition. The paper negative and bromoil transfer are processes that the miniature camera worker would do well to employ.

For a process of such great potentialities there has been surprisingly little literature on the subject of the paper negative. This paucity of material is no doubt partially due to the simple and obvious nature of the fundamental principle of the process: "paper negative"—the term is practically self-explanatory. But most amateur experiments with the procedure terminate very unsatisfactorily; for there is a great deal more to the process than the fact that it utilizes a negative made of paper. Correctly understood and handled, the paper negative is one of the noblest processes available to the pictorialist. It is employed by Echague, who is probably the outstanding pictorialist of these times. The scope it provides for selectivity and control is only slightly less than that afforded by the bromoil transfer. Indeed, I have found in working with pupils that it affords the best possible preliminary training for the latter process. Not only are the facilities for local alteration similar, but a similar type of original print is required. A print that is correct in quality for a paper negative is also suitable to being converted into a bromoil matrix.

In broad outline the paper negative procedure as I practice it is as follows: A bromide enlargement is made from the original negative. After the desired alterations are made on the enlargement, it is placed with its emulsion side in contact with emulsion of another sheet of bromide paper and, by printing through, converted into a negative. Further alterations may be made on this negative, after which it is again placed in contact, emulsion to emulsion, with a third sheet of bromide paper on which the final positive print is made.

The procedure given above differs in various respects from that advocated by other workers. For example, instead of starting with a simple bromide enlargement, some advocate making a film positive. I prefer the paper positive on account of its simplicity and much greater ease of alteration. Extensive alteration of a miniature film positive is a practical impossibility, whereas the enlarged print allows for changes in the same terms in which they will appear on the final print. Another point of difference involves the making of the final print from the paper negative. At this juncture, instead of placing the emulsions in contact, one authority advises putting the emulsion side of the negative against the plain side of the printing paper, so that the light passes through the thickness of both papers. This procedure, he suggests, minimizes grain, because the texture of one paper tends to neutralize that of the other. My experience, however, indicates that this method introduces undesirable diffusion and fuzziness: keeping the emulsions always in contact, on the other hand, permits of no loss of definition. As far as grain is concerned, I am unable to discern any difference between the results of the two methods.

Much more important than the mechanical details of the process (variants of which each practitioner may work out for himself) are certain requisites of print and negative quality. It is failure to understand



*"The Sophisticate"*

*Tamis Maddick*

Made by paper negative process from  
a Leica negative

these that is chiefly responsible for the unsatisfactory outcome of most experiments with paper negatives. Not every print by any means, not even every good print, is adaptable to the process. There are three of these requisites, and they must all be observed if good results are to be obtained.

**CONTRAST MUST BE AVOIDED.** The tendency of the paper negative, as of most other processes, is to exaggerate contrast. What seems an effectively contrasty print is often converted into sheer black and white. Hence great care must be taken to secure and preserve all the middle half-tones. There are three sources of contrast, all of which must be avoided. (a) It may be the result of one-sided, unbalanced lighting. A fairly flat lighting is much better for processing. (b) The contrast may be inherent in the local colour of the subject, with large areas of light and dark placed in juxtaposition. (c) Contrast may be of chemical origin. For this reason, in working with paper negatives, it is necessary to avoid contrasty emulsion on the original negative, as well as on the bromide paper, and to avoid likewise contrasty developers for paper negative and final print.

**THE SOFTNESS OF THE ORIGINAL PRINT AND OF THE PAPER NEGATIVE MUST BE INTRINSIC AND GENUINE.** A sort of spurious softness is to be obtained by under-development. But a print thus secured will not produce a good paper negative. A print of the right type shows a scanty use of pure black and white, but a full and *complete* range of half-tones lying between. Such a print is to be gotten only by full development and correct quality of the original negative.

**THE ORIGINAL NEGATIVE MUST BE OF CORRECT QUALITY.** In larger negatives slight deviations from the standard may be permitted; but in miniature negatives each deviation is magnified to a disaster when it is enlarged. A negative of correct quality utilizes the full range of half-tones that its emulsion affords. It therefore exhibits a very sparing use of either full black or complete transparency, reserving the former for nothing but the intensest high-lights, and the latter for nothing but the deepest accents of the shadows. Between these two extremes there must be shown a complete range of translucent half-tones, providing modelling by delicate gradation in the light area, and giving a suggestion of drawing in the darker area. This type of negative is very difficult to obtain unless one understands the precise factors of exposure and development that enter into it. Broadly speaking, these factors may be summed up in two rules. (1) The minimum of exposure. (2) The maximum of development. By "minimum of exposure" is meant an exposure based on the light area (rather than on the shadows, as the older rule has it). Such a procedure preserves all the half-tones of the light area, instead of lumping them together with the high-lights as the conventionally over-exposed negative does. But to secure all these half-tones it is essential that the second rule be equally observed. By "maximum of development" is meant *full* development. Any negative that has to be "jerked" from the developer in order to prevent the light area from block-

ing up is *ipso facto* an over-exposed negative. With a developer of reduced alkalinity there is no such thing as over-development *if* the original exposure has been correct.

The same two rules must be observed in making prints and paper negatives in order to save at every point the all-important middle tones. For this reason I not only employ the briefest possible exposure compatible with the above theory of density, but employ the A solution of D64 at one quarter strength (i.e., one part of D64-A plus three parts of water).

In addition to a negative of correct quality, the following equipment and materials are required for the paper negative procedure as hereafter outlined.

Projection printer.

11x14 printing frame.

Retouching desk, sub-illuminated. (Failing this, a contact printer will serve.)

Carbon pencil, Wolfe BB.

Felt stump.

Venus pencil, medium.

An ample supply of XF bromide paper. (Defender velour black F)

For clearness of demonstration I have chosen an example showing a rather extreme amount of control. Not only has a background been added, but there are numerous local alterations. The model was originally photographed in front of an illuminated white screen under a flat front light. A tall gray box served for the vertical form in the background.

Note that the original print (fig. 1) is amply supplied with half-tones, and that there is nowhere in it an extreme contrast of black and white. As a first step in planning the picture, make a small enlargement (about 4x6), determine the most effective framing, and with pencil and eraser make a rough preliminary lay-out of the intended structural alterations.

Using this as a guide, proceed with making an 11x14 enlargement on F paper, framing it in accordance with the plan. Be careful not to over-expose the print, and develop it for four minutes in the A solution of D64, one quarter strength.

#### DEVELOPER FORMULA D-64

##### STOCK SOLUTION A

Water (about 125° F.)	. . . . .	16 ozs.
Metol	. . . . .	68 grs.
Sodium Sulphite (dessicated)	. . . . . 1 oz.	55 grs.
Hydroquinone	. . . . .	75 grs.
Sodium Carbonate (dessicated)	. . . . .	385 grs.
Potassium Bromide	. . . . .	35 grs.
Cold water to make	. . . . .	32 ozs.



Fig. 1  
Original direct  
enlargement of  
"Market Girl"

Use: (For this purpose)

Stock Solution A.	.	.	.	.	.	.	.	4 ozs.
Water	.	.	.	.	.	.	.	12 ozs.

After the print is dried and pressed proceed to make the desired alterations. Work with pencil on the face of the print, and with transmitted light. Use the Venus pencil for detail and the carbon pencil for broad passages when intense black is required. The stump is used to accomplish gradations of tone. Begin working with the head. Do not make the error of starting with the background, lest you lay in the tone too dark. The head and figure, as the dominating element of the picture, must determine the key of the other planes of the picture. Emphasize the shadows, rounding the contour of the head and the orbits of the eyes, and filling in between strands of hair and badly placed light passages. If it is necessary to get extremely dense blacks, turn the print over and work on the back also. Remember always that it is the transparency value of this print that is of importance, not the surface appearance.





Fig. 2

Paper negative made  
from positive, Fig. 1,  
with alterations

Proceed down the figure, adjusting the drapery and shadowing the breasts slightly to emphasize the modeling of the body. Notice (by comparison with the final print) that the vegetables in the lower corners are considerably lowered in tone to lead the eye to the center of the picture.

When the key tone of the dominating plane of the picture is established, begin work on the next plane, which in this case is the timber and stone wall. Be careful to avoid mechanical monotony in the stones, and note that they are *suggested* with light and shade and not literally drawn in. Keep this plane in a lighter tone than that of the figure. The other planes are built up in order, with progressive lightening of tone. Note that the distant spires echo, in form and number, the motive of the hanging moss, and that the mountains carry out, but not too obviously, the rhythm of the neck-line. The sky is darkened inward from the edges to bring the strongest contrast opposite the head.

To make the paper negative, lay this altered print in the printing

frame, emulsion upward, press it into close contact with the glass and lay a piece of F paper over it, emulsion down. Before locking up the frame be sure that the two papers are in absolute contact, for any bubbles or bulges are disastrous. Give it an exposure commensurate with four minute development, with the lens of the projection printer wide open.

The paper negative thus obtained (Fig. 2) shows some increase in contrast, but, thanks to the softness and gradation of the original print, this increase is not serious. At this stage, incorporation of light passages is accomplished. As with the initial print, the work is started on the principal plane of the picture. The detail of the hair is renewed, and the high-lights on the face are intensified. The modeling of the body beneath the dress is suggested by a few high-lights. The neck-line of the dress is lightened and almost eliminated in order to pull the light passages of the picture together. For the same reason the embroidery pattern on the right shoulder is much subdued and considerably lightened in tone. High-lights are intensified on the sash, on the fingers and on the vegetables in the foreground. Notice also that the bad fold breaking the line of the right sleeve is eliminated, and a slight correction made of the disagreeable foreshortening of the fingers of the left hand. Detail and character is given to the confused mass of foliage at the left. Passing then to the other planes of the picture, the high-lights are intensified on the stones in the wall and the sky slightly brightened near the head.

The procedure for making the final print is the same as that described for the paper negative. The exposure and development times are the same. In printing, the principal figure may be given increased dominance, if desired, by "dodging" with the negative removed.

The picture "The Sophisticate" was made by a pupil of mine. I have included it because it is an excellent piece of work and because it shows the extremely personal type of expression possible with the paper negative process. In this case the formal aspect of the figure has been emphasized by bringing out the wiry outline and making it tight and rigid.

Like Projection Control or any other control process, the paper negative is liable to unskillful and ignorant abuses that make the judicious grieve. Paper negative prints are frequently to be seen in salons and photographic annuals that betray complete lack of knowledge of human anatomy by placing the high-lights in utterly impossible locations. Others, by harsh and obviously drawn outlines, completely violate the integrity of the photographic original. The process must not be regarded as a means of "doping up" an indifferent picture to conceal earlier technical blunders: technically, the original print should be able to stand on its own merits. A control process lays a heavy burden on its user because it cuts him off from the precise mechanical guidance of the camera. Unless he knows what he wants to do and how to do it, he is very certain to find that what he has made is a mistake, and not a picture.



*"Market Girl"*

*William Mortensen*

Made by paper negative process  
from a Leica negative

# First Salon Of Pure Photography

John Paul Edwards

"683 BROCKHURST presents a Salon of Pure photography." This intriguing announcement has created important national interest in the young gallery, in its work, and in the current exhibition particularly. The idea fathering the Salon of Pure Photography, came from an article published in an early spring issue of *"Camera Craft"*, which deplored the fact that Edward Weston, Anton Breuhl, Imogen Cunningham, and other leading workers in the modern photographic movements did not send their work to the nationally known salons and exhibitions of photography. To quote the article these workers were "aloof from the main stream of photographic endeavor." In reply to this article Willard Van Dyke stated that the national salons did not seem interested in pure photography as a definite movement except in isolated cases. From these discussions and their varied ramifications, came the idea and achievement of the present salon.

A definition of the term "pure photography", is well in order at this point. The term may properly designate a photograph made from an unmanipulated negative, one free from modification or handwork, made with a corrected lens, sharply focussed throughout. In saying "sharply focussed" we must often recognize limitations of medium due to insufficient light and necessity of stopping motion, where details will be more or less out of focus. However, the objection to deliberate racking out of focus for planned effect would be precluded. The negative described must be presented in what is technically called a straight printing medium, and all controlled processes must be excluded. This definition is given with full realization of its controversial possibilities. However, it rather



*"Feet"*

*N. Abbenseth*

*1st Salon of Pure Photography*





*"Thinking"*

*E. Quigley*

*1st Salon of Pure Photography*

defines the limiting qualifications set by the jury of selection of the exhibition.

As to the interesting details of the show statistical and otherwise: The jury of selection consisted of Edward Weston, Ansel Adams, and Willard Van Dyke.

There were 600 photographs submitted from which the jury selected 57 by 34 individuals. The entries came from a wide geographical field.

The exhibition as a whole appealed to the writer as one of the most interesting he had seen in many years. This is due to a welcome freshness of point of view and presentation, to the generally fine technique of negative and print making evidenced in the work, to the care shown in mounting, spotting, etc., to the obvious pride in craftsmanship. The work is vital and thoroughly in time with our age.

As to the individual photographs, limits of space prevent me making extended comment on each print of merit. It is only possible to touch on the high spots of the exhibit:

Nacho, a young Mexican boy of Monterey, California, has a strong



"Rope"

C. F. Adams

*1st Salon of Pure Photography*

thing in "Industrial", (see cover picture) and a technically beautiful photograph, "Erosion".

"Feet", and "1933", (a photograph of the Twin Peaks district of San Francisco), by Abbenseth are outstanding.

Alajos Schuszler shows a whimsical study of a battered statue with arm upraised, titled, "Carry On".

Two portraits by Arthur Racicot, are particularly excellent examples of a fine, clean cut technique.

"Stairway", by Fred P. Peel is an intriguing design, nicely seen.

Five photographs of Pittsburg by Luke Swank, measure up as the best individual group of the exhibition. Technically splendid, interesting in subject matter and point of view, this a truly splendid work.

Sibyl Anikeef has two photographs of Monterey fishermen which are exceptionally interesting.

"Thinking", an appealing portrait by E. Quigley, is one of the strong, likeable things of the show. The head is nicely placed and the photograph handled with fine technical ability. Two other interesting prints by Mr. Quigley, are "Flames", a row of burning candles, and the

enigmatically entitled, "Quetzalcoatl" an abstraction formed by the play of light on a lens front.

H. W. Wagner's photograph of a winter stream titled "Frozen Jazz", is good photography, and his "Wind" is a charming decorative bit.

"Barn", by George Mantor shows the many photographic possibilities in commonplace, "everyday" subject material.

"Cloud", by Virginia Moss Brown, is very nicely seen, and well presented.

William Wing did well with "Sunlight", an old lumber pile splashed with sunshine.

Photography can handle definite textures better than any other graphic medium. This ability is ably shown in Leonard Stark's "Eroded Plank".

C. F. Adam has an excellent still life "Rope".

Mexico seems to provide an interesting field for photographic work. Very beautiful are Paul Taylor's two photographs of peon life in Jalisco. Of the two, I liked better his print of the man carrying jugs. Also, of this fascinating country is Howard Putzel's excellent "Houses, Taxco".

An interesting arrangement, and well printed is Evelyn Curtis's "All Ye Who Enter".

Frank J. Roos, Jr. does well with the massive block forms of city buildings in an interesting photograph, titled "Windows".

I like very much two prints by Richard Mercer. His "American Home", a ragged arrangement of homely ranch buildings against the skyline, is particularly interesting.

"Cabbage Leaf", by Meidel Applegate is done in an able manner, with nice handling of tone values.

Good technique distinguishes two portraits titled, "Algebra", and "Lewis A. Gordon", by Helene Sanders.

There is a very nice rendering of the water in M. K. Curtis's "Frosted".

"Bridge Cables", and "Plowshares", by Dwight Kirsch are most interestingly seen.

Don K. Oliver has a nicely composed photograph in "Anchor".

A logical question for the layman to ask is "What is the significance of pure photography?" This movement is not essentially new, but it is a definite renaissance. Photography has run the gamut of fads and fancies—some logical some beyond sane understanding in the light of mature retrospection. We have had a deluge of controlled processes, manual and chemical. We have printed through tissue and silk. We have had lenses that bent the light rays and made them shimmer, and shake. We have gone to endless pains to make our photographs look like something they are not. And now we are back again to using the camera and lens to make photographs that pretend not at all.

We realize that pure photography has inherent qualities that make it a graphic medium of dignity and worth; that sheer aesthetic beauty may be found in the technical excellence of the master photographic craftsman.



"Pittsburgh #12"

Luke Swank

*1st Salon of Pure Photography*

The photographic purist is not a militant crusader. He has no quarrel with the pictorialist and his ideals. He merely feels that in pure photography per se, he has a most worthy and satisfying medium of personal expression. Such an able medium has a definite and distinctive work field of its own, without intruding into the fields better handled by other media.

*This show is currently on exhibition at the Adams-Danysh Galleries, 166 Geary Street, San Francisco, Calif.—Ed.*

# Portraiture With Two Photofloods

Albert K. Wittmer

**T**O the average amateur, taking portraits at home seems to be a difficult task, yet it is comparatively simple. Portraits of family or friends that are worth showing may be a source of pride and will give everlasting satisfaction.

In order to take portraits at home, it is not necessary to have expensive equipment. Little money is needed to complete the photographic outfit if the required apparatus is not already at hand. A camera, two separate lights for front lighting, and a smaller light source for back lighting is all that is needed to make good portraits. Home portraits can be taken with almost any kind of camera.

It does not matter how expensive or how cheap the camera is; the result depends mostly on the man behind the camera and how he uses his equipment. To mention all cameras suitable for portrait work is almost impossible. An attempt will be made to give only a few points as to the requirements of cameras for home portraiture. The best camera for the amateur is one which has a double or triple extension, ground glass focusing, and interchangeable lenses. These requirements are fulfilled in almost any view camera. Not every amateur is lucky enough to have one of these, however. He is happy if he has a folding Kodak or Graflex camera. But he does not need to be discouraged. Even with this kind of camera, good portraits can be taken if he follows a few simple rules.

One of the most common errors the amateur makes is to overestimate his lens regarding perspective. He will try to get as large a head as possible, and the results will be most disappointing, as the features of his sitter will be distorted and the model will not look his or her best.



To get both pleasing perspective and a large head, it is necessary to have a fairly long focus lens, or to use a portrait attachment. It is a good rule to have a lens which has a focal length at least equal to the diagonal of the film or longer. The illustrations in this article were made with a lens of focal length equal to one and one-half times the diagonal of the film. The lenses usually supplied with smaller cameras have not a long enough focus to overcome poor perspective at close range.

Rather than move too close to the sitter with the camera, the photographer should stay a little farther away and get more of the figure. If a large head is wanted, it is better to make an enlargement later. The results will be much more satisfying.

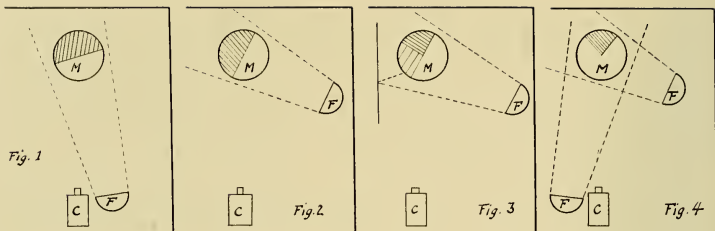
Should a large head be wanted on the film for any reason, and the camera has double extension and a symmetrical lens, the focal length can be increased by using either the front or back element of the lens. This will somewhat affect the definition, giving a softer outline to the figure, but from the same distance the image on the film will be twice as large as before. In using a single element of the lens, the distance from the ground glass to the lens is increased and it is necessary therefore to give a longer exposure. If double extension is not available, a portrait attachment should be used. This is simply an extra lens mounted to fit over the front of the regular camera lens. With this attachment in place, one can work at greater distances and still obtain large heads.

Focusing of the image should be done on a ground glass if available. With the *focusing-by-scale* type of camera, it is necessary to judge the distance from the camera to the sitter and set the scale accordingly. As the depth of focus decreases rapidly as the camera approaches the sitter, it is important to judge the distance of close-up subjects more carefully than for long shots. It is best to measure the distance with a tape measure. A tape measure can easily be fastened onto the camera or tripod and all one has to do is to pull the tape and read the distance.

Portraiture should never be attempted without a tripod or some other kind of support. The tripod should be steady and capable of being raised or lowered easily.

In making portraits, the subject must be the dominant figure to which all other parts of the picture are subordinated. It is best to place the sitter in front of a plain wall. If a plain wall is not available, a piece of neutral colored cloth hung against the wall makes an excellent background. The sitter should never be too close to the wall in order to avoid a heavy shadow; two or three feet is about the right distance. It is also desirable to be able to place a small spot or floodlight behind the sitter. That the background must be subordinated and unobtrusive should always be kept in mind. Light frames, reflecting glassware, or heavy wall-paper designs behind the head or shoulder of the subject should be avoided. If the pose is of an informal type, as around the house (Fig. 5, 6), some detail in the background is permissible, but in every case it must be subdued and in no way attract attention from the sitter.

In posing the subject, care should be taken not to fuss too much. The camera and lights should be in about the place where it is intended



to use them. When photographing one's own friends, there should be little difficulty in securing a pleasing expression. Children are born actors. All you have to do is to coax your little subjects to the proper place, watch your chance, and make your exposures as quickly as possible.

As a light source, almost any kind of light can be used provided sufficient exposure is given. Even with moonlight, portraits could be taken if a long enough exposure were given and the subject could remain still for the time required. As one wants to make exposures as quickly as he can, a more suitable light is needed. With panchromatic materials, tungsten lights are the most suitable, particularly those of the Photoflood type.

For the illustrations in this article, Photoflood lamps in Kodaflectors were used. These lamps are convenient and cheap. The price is so low that every amateur can afford to have three or four of the lamps around the house all the time. The Photoflood lamp provides a steady burning, soft light. It resembles a 60-watt Mazda bulb and may be used in any household light socket. When the lamp is used on a regular house circuit (105-125) volts an intensely bright light is produced, giving an effectiveness for photographic purposes of that of a 750-1000 watt ordinary lamp.

Even more important than the kind of light source used in making portraits is the size and shape of the reflector around the lamp. Using a lamp in a narrow housing will tend to give a hard lighting; that is, the shadows will be sharp and defined. On the other hand, a reflector of wide dimensions will give a softer lighting. In order to get the maximum light value, every lamp should be used with a reflector. Suitable reflectors are available at small cost, and it will pay the amateur to get a set. If no reflector is handy, the shade on a bridge or other lamp can be used to advantage, but much light is lost from lack of a proper reflector. A properly designed reflector increases the efficiency of a light at least four to five times, making it possible to give shorter exposures.

For back lighting, a small lamp in a narrow reflector is the most suitable. The lamp should be of rather small dimension, so that it may be hidden behind the sitter for effect lighting.

Before we start to arrange the lighting for our portraits, let us consider what is good lighting: To light a subject properly is to reproduce

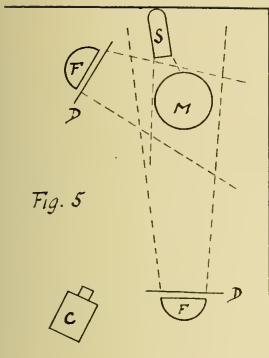


Fig. 5



Fig. 5

Designation of diagrams:

C—camera; D—diffusion screen; F—floodlight; M—model;

S—spotlight

Two photofloods, diffused; one spot, open. One second at F:7; portrait panchromatic film. An attempt was made to capture a home-like atmosphere. Person sitting in easy chair reading magazine. Room light subdued except for bridge light behind sitter. The diffused flood light or general light was used at a distance of ten feet at camera level. The highlight came from a diffused light, five feet from sitter and eight feet high. The open 200 W spot was used to bring a little more life into the hair. The bridge lamp (25W) was turned on but was not strong enough to have any effect.

the characteristics of the subject by the correct application of light and shade. Light without shade will not produce a pleasing and characteristic portrait. The beauty of a good portrait lies in the delicate half-tones and shadows as well as in the highlights. In all, the making of a good portrait depends essentially on the man behind the camera and how he uses his lights. He must know how to judge the distribution of light as regards highlights and shade. It is well for the beginner to do a little experimenting with his lights before he starts taking portraits.

Placing our subject close to the light source with the light coming from the front and full on the face (Fig. 1), we find that all parts are equally illuminated and the face appears flat.

By moving the light farther to one side of the subject, we notice the increase in gradation in the face (Fig. 2). Only the part in the deepest shadows will be too dark to give a pleasing portrait. If we had

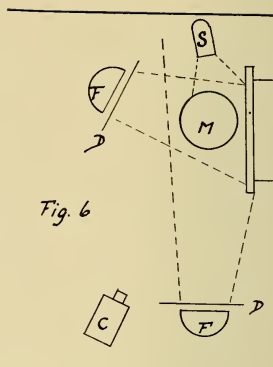


Fig. 6

One photoflood, diffused; one photoflood, open; one spot, open. One second at F:7, portrait panchromatic film.

This arrangement gives a rather flat lighting. The general lighting comes from the floodlight near the camera which was placed at camera level, 12 feet from subject. Floodlight on left was at a distance of 5 feet and level with the head of the subject. The spotlight was in line with fireplace, 7 feet high. It gives just sufficient light to make the girl stand out from the wall and puts a bit more life in the hair.

A better composition would have resulted if the model had been moved to the left so that the frame of the picture on the wall would not run through the head.

only one light, we could help by placing a reflector (white cardboard or cloth) close to the shadow side (Fig. 3). This would lighten up the shadow side and enable us to get sufficient exposure on the side, giving a less contrasty portrait.

As we intend to use two lights for our portrait work, we shall see later how to set the lights to balance the shadows. Let us leave our first light in the same position but raise it and point it down on the subject at an angle of about 45°. We shall notice quite an improvement. The light coming from above will make the eyes lie a little deeper, produce highlights on the cheekbones, and make the chin appear more prominent. If the light is placed on the highlight side of the sitter, the shadow cast by his nose will give a good indication when the light is placed right. If the shadow is straight across the cheek, the angle of the light is too low and there is too much side light. If the shadow comes directly underneath the nose, covering part of the upper lip, too much top light is used.

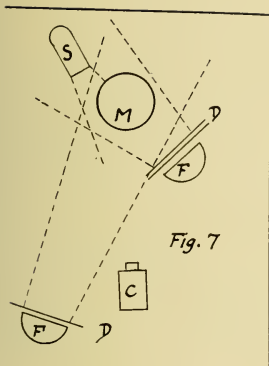


Fig. 7



Two photofloods, diffused; one 500 W. projection lamp for spotlight.  $\frac{1}{2}$  sec. at F:7, portrait panchromatic film; gray cloth background. A typical portrait. Subject was seated on a low dressing table bench. Camera was low, shooting upward, sitter looking down, giving height to person.

The general lighting was obtained with one diffused light 15 feet distant. Floodlight on highlight side was 5 feet from sitter, six feet high, diffused with two layers of cheese cloth. The subject was three feet from background. The open spot was well in the back to the left of sitter. Notice the effect of the spot on the hair of the subject. Original negative includes about half of the figure, which was eliminated by framing during enlargement.

The shadow of the nose should fall upon the corner of the mouth when the light is placed in the right position.

After these few experiments with one light, let us start with our second light. As mentioned before, the shadow side of the subject will be too dark to give sufficient exposure. The purpose of the second light is to give just so much light as is needed to give a well balanced negative. This light should be at the side of the camera, rather near it, and low (Fig. 4).

It should in no way interfere with the first light; that is, the modeling obtained with the first light should not be destroyed by the second light. If the second light should be too close to the sitter or too powerful,



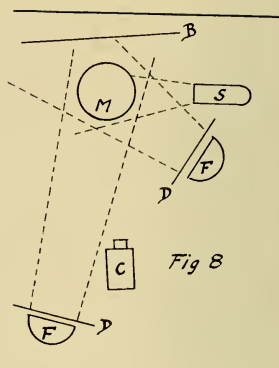


Fig. 8

Two photofloods, diffused; one 200-watt spot, open; one second at F:7, portrait panchromatic film; gray cloth background.

A simple and snappy lighting. Subject close to background. The general light was in line with camera. Tracing cloth used for diffuser. The highlight source was four feet from the sitter, high up, shooting over the shoulder of subject. The 200-watt spot was just out of the picture to the right, in line with the model and concentrated on the hair.

the modeling in the face would be destroyed and a flat picture would result. If we look at Fig. 4, we shall find that the second lamp is about one and one-half times as far from the subject as the first light on the highlight side. This should give about the right proportion to obtain a pleasing modeling. This assumes that the same type and amount of light and the same type of reflector is used. If different light sources or reflectors are used, the amateur must find the proper relation of his lights by testing them.

In using artificial lights for portraits, it is always advisable to use some kind of a diffuser over the lights. When a diffusing screen is used, the edges of the shadows are softened instead of being hard. For diffusing materials, all kinds of transparent mediums can be used: If tracing cloth is not available, two or three layers of cheese cloth will do very well as a diffuser. In making portraits, sufficient diffusers should always be handy. Rather than move the lights forward and backward to get the

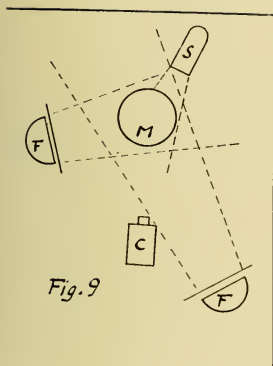


Fig. 9

Two photofloods, one open, one diffused; one 500-watt spot, open; one second at F:7, portrait panchromatic.

A regular three-quarters or forty-five degree lighting was used. The highlight on the left side of the face was produced by a diffused light coming from an angle of forty-five degrees, giving good modulation in the face. The general light was at the right of the camera, ten feet from the sitter. The spot light was almost above the head just out of the picture.

proper balance and lighting effect, one or more diffusers should be used over the light. This makes faster working possible and is less disturbing to the sitter.

The purpose of the spot light varies greatly in different portraits. It may be used for back-lighting (to make the sitter stand out from the background), to lighten up a too deep shadow, to accentuate and bring out a certain part of the picture, and for many other purposes. Its main function in portraiture is for back-lighting. It should be used rather sparingly and never be too prominent. It is better to have no back light than a too prominent light patch in the picture.

In lighting portraits, the amateur must watch that no light from any of his light sources hits his lens directly. If it does, lens flare will be introduced and his pictures will look flat. He must either screen his lights or use a lens hood. A lens hood can easily be made from a piece of cardboard and will be a great help.

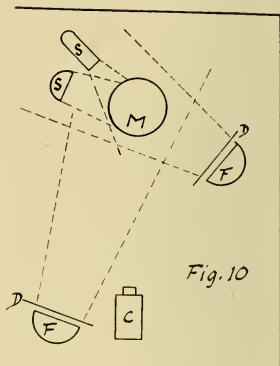


Fig. 10

Two photofloods, diffused; two spots, open; one second at F:7; portrait panchromatic.

In this case two spot lights were used. One was trained to outline the face and the second to hit the dress and arms of the subject. This was done to get a little more life in the otherwise dead portion of the portrait. The front light was a forty-five degree lighting with the highlight side to the right. The general light was close to the camera. The camera was rather low to give height to the subject.

The accompanying pictures were taken in an ordinary living room, and the only equipment used was two Photoflood lights in Kodaflectors, one home-made spot light, and a piece of gray and white cloth.

These illustrations will give an indication of what can be done with very little lighting equipment. Of course, they do not represent all possible lighting effects, nor do they imply that more or fewer lights cannot be used. It is the intention of this article to suggest some simple lightings and a few variations.

The pictures were made with a 5x7 view camera and later enlarged to 10x12. Some friends to whom the pictures were shown criticized the plain background. If more life is wanted in the background, the simplest thing is to use one draped in folds. This will give a pleasing effect and does not distract too much from the portrait. No retouching was done on the negatives except for some spotting.

If more amateurs would try making portraits, I am sure that after they once begin they would derive a great deal of pleasure from it.

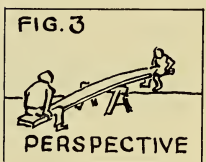
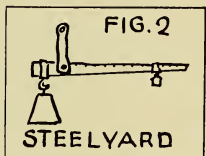
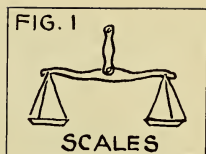
# Composition For The Beginner

Thomas A. Wilson, M. S.

## Part II

"ART," said Corot, the French landscape painter, "is nature seen through a soul." From this standpoint, it is quite likely that any two different artists would have somewhat different ideas concerning any particular part of nature, hence their pictures of any given subject would probably appear more or less different to the person observing them. In painting a tree, for instance, one artist might emphasize the trunk and the branches, while the other artist might emphasize the general contour of the whole tree. Nevertheless, whatever the purpose of the different artists in painting the pictures, each would see to it that his tree was so placed on his canvas that no particular part of the canvas would appear too important, yet all parts of the canvas would be interesting. Their pictures would be composed, and each stroke of the brush would be placed where it was thought most needed.

Photography, on the other hand, is nature seen through the lens of the camera, in itself a more or less mechanical procedure. Correct timing, developing, and printing require skill on the part of the photographer, but skill, according to the statement of Corot, is not all there is to art. The photographer, therefore, must not merely make perfect pictures from the standpoint of the camera, but he must express something of himself through them. In photographing a tree, he must make a picture that shows what he himself thought and felt about the tree. In this way, the photographer may become an artist quite as much as the painter. But he must also compose his pictures. He may do this by retouching the negative, blocking out and staining undesirable portions of it; he may employ various dodges in printing; he may compose by means of his enlarger; he may trim away parts of the finished print; best of all, he may compose his pictures properly on the ground glass before making the negatives, thus reducing the need for an undue amount of trimming, faking, etc. The principles of composition which he must observe are the same ones used by the painters, and not the least important of these principles are the balancing of the masses and tone values, and the effect of direction of line. It is the purpose of this article to throw some light upon these principles.



Pictures are organized patterns made of lines, outlined shapes, or masses of light and shade. In the most pleasing pictures these elements, lines, shades, or masses, are arranged so that each will keep its place in the composition without appearing either too important or not important enough. This is accomplished largely by balancing the things pictured, one against the other, much as one would balance physical weights upon a pair of scales; thus an object on one side of the picture would be balanced by an object on the other side. In a picture of a single object, the balance might consist of patches of light or shadow.

A picture must be able to hang against the wall from its exact center without having a lopsided appearance, and without either of its sides attracting too much attention. Pictures that have stood the test of time, and pictures that are universally accepted as being works of art almost invariably balance in this manner. The well-balanced picture gives a feeling of satisfaction of completeness of form—that nothing else could be added without injuring the pictures, and that nothing within the picture could be dispensed with.

The simplest manner of obtaining balance is to make both sides of the picture exactly alike. Or to place objects of equal interest or attention value on each side of the center of the picture. This method, as illustrated in Fig. 1, was used largely in the past, but is used today principally for formal decorations and formal architecture. However, by turning the objects to be pictured in a position so that they will be viewed in perspective, we have a kind of balance that is widely used in all kinds of art (Fig. 3), for the balance in this position extends into the depth



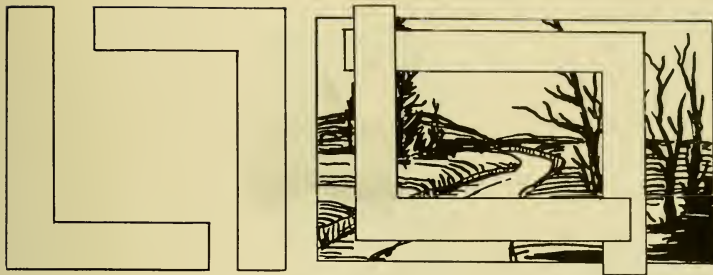


Fig. 4

of the picture and takes care of the background. The point of balance, or axis, is on a vertical line in the center of the pictures, as in the first kind of balance.

Another method of balancing the picture is similar to weighing things upon a different type of scales, the steelyard (Fig. 2). The heavy weight, a short distance from the supporting pivot, or axis, balances a lighter weight a greater distance away. The axis in this kind of balance is established by the eye on a vertical line to one side of the center of the picture.

For examining for balance, two L shaped pieces of cardboard may be used, as illustrated in Fig. 4. This device is useful as a guide for trimming and for selecting small parts of a picture for enlargement.

Not only must the objects pictured be balanced but the tone values in which they appear must also be balanced. The tones consist of light and shade in varying degrees of black, white, and gray. A small amount of black in which there is little or no detail is equal to a considerably larger amount of gray. Likewise, gray is a heavier tone than white. However, a small spot of white surrounded by a darker tone is very powerful and will balance a fairly large amount of black or gray. It is not well to divide the picture regularly into two or more equal amounts of the different tones, nor should the tone values appear too numerous and carelessly placed, for a spotty looking picture would result. It is well to remember that the use of very few tone values adds to the vitality of the picture; the use of many tones softens the effect and helps tie the different parts of the picture together.

Rembrandt, the Dutch painter, developed the idea of using brilliant illumination in pictures so that a very few tone values are apparent. His light is very strong, and his shadows are very dark. The influence of his painting is seen today in photographers who work with strong contrasts of light and dark, most of them using artificial light which is not greatly diffused. Bieber's portraits are often done in this manner, and he emphasizes the most individual characteristics of his portrait subjects with strong light, the rest of the picture being lost in shadow. Such pictures are very striking, but such treatment is best for pictures of people



FIG. 5



FIG. 6

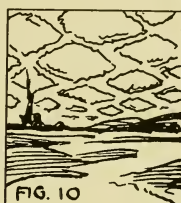
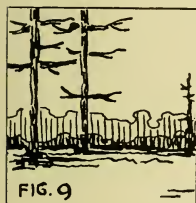
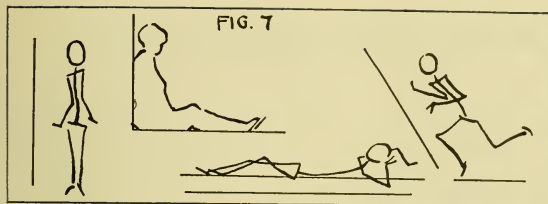


or objects where a small area of detail is of more significance than the general outline or shape. In pictures where the shape is more characteristic than the detail, and this is true of most subjects, several different tones may be used to best advantage. Figures 5 and 6 illustrate this principle. In Fig. 5, the features of the face are emphasized by using only two tone values; Fig. 6 shows the use of three tone values.

The lines of interest which run through a picture suggest various impressions. Vertical lines suggest dignity, stability, height and slenderness. Horizontal lines suggest breadth, repose, and restfulness. Oblique lines suggest motion, energy, and activity; they lead the eye in the direction in which they are inclined. An examination of newspaper cartoons, such as those of Darling, will show how effectively oblique lines may be used. The S or Z shaped lines are the most beautiful and interesting, and they are easily balanced; such lines are often found in nature, and they draw the eye along them without fatigue. Single curved lines are not as satisfying as the double curves of the S shape, but when used with straight lines they are very effective. Figure 7 illustrates the effects of different straight lines.

Opposing pairs of straight oblique lines add vigor and balance. Composition based on this principle is frequently seen in commercial and "modernistic" art and photography. (Fig. 8).

Long horizontal lines running completely across the picture must be used very carefully, otherwise they will lead the eye out of the picture before all of the objects pictured have been seen. When such lines are



used, it is well to have them crossed with vertical lines in such a way that the horizontal divisions of the picture are tied together (Fig. 9).

In landscapes, it is usual to think of the sky as being in a vertical plane, however, the sky is in reality in a horizontal plane, parallel with the earth's surface. Tall objects upon the horizon, however, appear in a vertical plane, hence they serve to tie the earth and sky together. Tall trees, mountains, skyscrapers, or columns of smoke seen upon the horizon are such objects, and these are useful in effecting the transition from the earth to the sky (Fig. 10).

In portraits, the twisting of the body into unusual positions adds to the dramatic quality of the picture, and it also aids in obtaining balance. Much of the great vitality of Rodin's sculpture is due to such contortions of the body. Steichen, who studied art under Rodin, uses this principle to advantage in portraits. Fig. 11 shows how he obtained balance and vitality in one portrait subject. The unusual position of the body creates a feeling of action, and the direction of line across the shoulders and hips helps to balance the picture by being in opposition to the oblique lines of the background.

Figure 12 shows how Beaton used double curved lines in a background to enhance an otherwise rather uninteresting portrait. Unusual backgrounds, contortions of the body, and peculiar lighting effects, however, must be used very carefully, for if overdone in any respect, the picture appears freakish.

The direction of lines of interest in a picture may easily ruin its pictorial effect, destroying its oneness, or unity. Also, line direction contributes to a feeling of rhythm in a picture. These subjects will be further discussed in the next part of this series of articles.

# Our Monthly Competition

With only three more competitions to go before the close of this year's club competitions, it appears that a very close race is developing in the Advanced Class for Large Clubs. Any one of five or six clubs stand a good chance of coming out on top by working hard during the remaining three months. Good luck to all of you, and remember that every point from now on will count a great deal.

Here is something to think about. Scoring for the 1935 club trophies will start with the January competition the prints for which must reach this office before Dec. 5th. We hope to offer bigger and better trophies, and the rules, etc., will be substantially the same as for this year. We would greatly appreciate hearing from as many clubs as possible regarding any changes in rules, and also in regard as to what kind of an award they feel most desirable. Cups, plaques, money? What would you rather have? Those not familiar with the rules will find them in the November 1933 issue, or we will gladly send them on request.

We have ample evidence of a steadily growing interest in these competitions, both on the part of the individual entrant, and on the part of clubs competing in the scoring for the club trophies. The circulation of the **Camera Craft** Traveling Salons, which start on their rounds this month, will undoubtedly interest more clubs and more individuals, so next year the number of entries will surely be greater and the quality of the competitions as a whole higher. Please write—we want your ideas.

## Scoring for Club Trophy Cups

The following won points for their clubs in the Advanced Class: A. F. Burritt, for the Camera Club of Ottawa; Mrs. Christine B. Fletcher, for the Photographic Society of San Francisco; and John Muller, for the Pictorial Photographers of America. Only two of the three points earned by Mr. Muller can be credited to his club as he has reached the total of 15 points permitted an individual.

The following won points for their clubs in the Amateur Class: Richard H. Mercer, for the California Camera Club; W. F. C. Anderson, and James A. Kelly, for the Camera Club of Ottawa; and Heinz Bertelsmann, for the Photographic Society of San Francisco.

## Contributing Clubs

California Camera Club  
Camera Associates of Huntington  
Camera Club of Ottawa  
Cleveland Y.M.C.A. Camera Club  
Fort Dearborn Camera Club  
Golden Gate Leica Club  
Green City Pictorialists  
Hartford County Camera Club

Los Angeles Camera Club  
Minneapolis Camera Club  
Photographic Society of San Francisco  
Pictorial Photographers of America  
San Jose Camera Club  
Schenectady Photographic Society  
Telephone Camera Club of Manhattan

## Standing of Clubs

### Large Clubs Advanced Class

Camera Club of Ottawa .....	20
Fort Dearborn Camera Club .....	17
Pictorial Photographers of America ..	15
Photographic Soc. of San Francisco ..	13
Los Angeles Camera Club .....	7
California Camera Club .....	6
Telephone C.C. of Manhattan .....	4
Utica Camera Club .....	1

### Large Clubs Amateur Class

Photographic Soc. of San Francisco ..	38
Schenectady Photographic Society ....	20
California Camera Club .....	15
Golden Gate Leica Club .....	10
Camera Club of Ottawa .....	4

### Small Clubs Advanced Class

Japanese Camera Club .....	16
----------------------------	----

### Small Clubs Amateur Class

Cleveland Y.M.C.A. Camera Club ....	6
San Jose Camera Club .....	2



*"Mitzi"*

*Christine B. Fletcher*

**First Award—Advanced Class**

■ Mrs. Christine B. Fletcher gives evidence of versatility by departing from her more usual still life subjects and presenting the charming and vivacious "Mitzi".

Mrs. Fletcher has been particularly successful in catching the playful, nervously energetic spirit of this puppy, who is obviously ready to go into action at the bat of an eye. Because of the strong sense of impending action that is evident in the print we believe that more space is required at the left in front of the nose.

The fact that from the head down the dog's coat is almost pure white, and that this area is not sharply focused, seems to prevent this area from providing as much support for the head as we would like to see. Simply dodging in to deepen the tone will not help for we would then lose separation from the background. Consequently the best solution seems to lie in a slight strengthening of the contrasts by a delicate building up of the highlights on the negative especially around the outline of the neck, and then slight dodging in during printing to give body to the shadows. Great care should be exercised to see that such alterations are not over done or the values will appear false.

Data: 4x5" Graflex; 8¼" Bausch & Lomb IC Tessar; 1/35th sec. at F:8 on Defender XF Pan., in M.Q. Borax; Defender Veltura Q, in M.Q.





"Horses"  
A. F. Burritt

■ It seems to us that Mr. Burritt's "Horses" is strongly suggestive of late afternoon, of the end of the working day. The low lighting and the tired plodding attitude of the horses combine to produce this impression. While we do not feel that a title is in any respect an important part of a picture it would appear that this one would perform its limited function better if it was more in keeping with the emotional reaction produced by the picture. Perhaps there would be less carelessness in the selection of titles if we stopped to realize that a poorly chosen title is very apt to create the impression that the photographer himself did not understand or appreciate the emotional values of his picture. For our taste the picture is a trifle over-diffused, and we would like to see more space in front of the horses face at the left.

Data: F. & P. camera; Ross lens; 1/100 sec. at F:4.5, on E.K. Verichrome, in M.Q. Defender print in M.Q.

Third Award  
Advanced Class

■ Mr. Muller has taken advantage of an unusual lighting to get this interesting shot, and the importance of the lighting is evident for one can easily imagine how uninteresting this scene would be under an ordinary lighting.

There is room for argument as regards the best means of handling the patch of bare ground which appears at the left edge of the print just below the horizon line. This acts as something of a distraction for it tends to pull the eye to the left of the buildings when one wishes it to travel along the street.

This could easily be retouched out on the negative or we could trim from the left into the vertical shadow at the left of the building in the left foreground, thus eliminating the bare patch entirely. There will be those who will object to the fact that with such a trimming the vertical shadow will coincide with the edge of the print. Against this we note that in the picture as presented the distance from the right edge of the print into the first large building is about the same as the corresponding distance at the left. This tends to give a static effect to the picture and for that reason we prefer to eliminate the bare spot by trimming as suggested.

Data: 4x5" Graflex; 7" Carl Zeiss 1/50th sec. at F:11, on Defender XF Pan., in M.Q. tank; K 2 filter; Defender Velour Black J.



"The Towers"  
John Muller

**Fourth Award**  
**Advanced Class**

■ Mr. Schneider presents a very attractive little subject, well posed, well lighted and nicely placed within the picture space. We have a decided preference for child portraits in high key for the high key seems so very appropriate to the care free, bubbling spirit of children. This picture is by no means in a low key, but with the short scale of tones which it contains we believe it could have been presented in a slightly higher key to advantage. This is apparently a print from a paper negative, and we would advise those who use paper negatives for such subjects to work for a minimum of grain, because the same reasons that make us prefer a high key for child portraits, cause us to feel that a distinctly broad treatment is not appropriate for this type of subject.

No data.



**"Portrait"**  
**D. Schneider**

**Fifth Award**  
**Advanced Class**



■ This picture will no doubt arouse considerable discussion as to whether or not caricature is properly within the province of photography. True, full, and free caricature is, of course, beyond the bounds of technical possibility, but there will occasionally be found subjects in which the application of a limited amount of distortion will unquestionably enhance the effect desired. Mr. William Mortensen in his Projection Control articles in the November and December issues of this magazine showed several examples in which distortion had proved of definite advantage. The question would therefore seem to be relevant mostly for specific instances. Will distortion help this particular print? We feel that in the present case it has resulted in quite an interesting study, but warn the amateur reader that it should be used with great caution.

Data: 4x5" Auto Graflex; 8¼" Celor; 1/5 sec, at F:5, on E. K. Super pan., by 4,

**"Cornelius Vanderbilt"**  
**Virna Haffer**

1000 W Mazda lamps and back light; Copied and distorted by use of the swing back and sliding front on 4x5" Korona view. Bromide print.



*"Pile Cluster"*

*Ralph Rex*

**First Award—Amateur Class**

■ The judges were intrigued by the severe simplicity of Ralph Rex's "Pile Cluster". A center of interest is well established by the highlighted area at the base of the piles, but one could wish that the rope carried farther to the left in order to break up the monotonous stretch of water and to get away from having all of the picture elements crowded at the right of the print. One further point seems worthy of mention. The distance from either edge of the print into the inside edge of the piles is too nearly the same. A little trimming from the left will correct this and give a desirable variety of spacing. As a matter of fact considering the nature of this picture we are not at all sure but what a better picture would be obtained by trimming away about two-thirds of the distance from the left into the point where the rope cuts the water, and about one half of the distance from the top to the horizon line. What do you think?

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$ " Graflex; 8" Wollensak R.R. lens;  $1/25$  sec. at F:8, on E.K. Verichrome, in D-76; E.K. Vitava print in amidol.

## Second Award

### Amateur Class

■ Heinz Bertelsmann discloses a nice sensitivity to the values of composition in his "Evening Shadows". The lines of the shadows and line set up by the footprints lead the eye firmly to the well established center of interest. Notice how important to the success of the picture is the fact that the clump of bushes at the right pass beyond the bounds of the print, and thus break up the skyline which would otherwise be much too strong for the rest of the picture. A picture of this type should of course be sharp throughout, and we regret that there is a slight falling off of definition at the base of the print. We cannot see that anything is lost by trimming a little from the bottom of the print—say up to the point where the lowest shadow line cuts the left edge of the print—and by so doing we eliminate most of the poorly defined area. In order to maintain pleasing proportions in the print we might also take just a little off the right. A slightly deeper tone in the sky would reduce its attraction and be more in keeping with the low angle of light, which suggests late afternoon.

Data: 9x12 cm. Voigtlander Avus; 13.5 cm. Skopar; 1/25 sec. at F:18 on Agfa Plenachrome, in D-7; Agfa Brovira print.



"Evening Shadows"

Heinz Bertelsmann



"Birches"

W. F. C. Anderson

## Third Award

### Amateur Class

■ Mr. Anderson's "Birches" has a fine rich tonal quality that brings to mind the work of the great English masters of landscape photography such as Roberts, Whitehead, and Keighley. Notice how the fact that all of the small branches in the picture lead off to the left, sets up a very strong sense of motion from right to left. As such, this is highly desirable, but we run into difficulties in the present print because there is nothing to counter this motion and consequently there is a tendency for the eye to leave the print at the left along the horizon line. A tree on the horizon line at the left of the print would hold the eye in at this point, or a path leading into the picture might establish the necessary counter force. Too bad that the small tree almost in the center of the print could not have been obliging enough to establish itself further to the left.

Data: Rolleiflex; 1/25 sec. at F:11, on E.K. Panatomic, in Rodinal; E. K. P.M.C. #8 in M.Q.





"West"

Richard H. Mercer

■ Mr. Mercer has found a rather original pose in this interesting modern portrait study, and it is well done from the technical standpoint, although we do feel that the shadow detail might be just a trifle stronger. It is all there however but we cannot be sure that it will survive the reproduction process. Notice particularly what a splendid background may be obtained by making use of the sky. We have often suspected that this fact is at least partially responsible for the vogue of low camera angles in portraits of this type. In this case the low angle seems justified although we do feel that it is a little over done. The fault of the picture however lies in the spacing. The whole thing is too high and too much to the left. Also the girls arm assumes too prominent a part in the picture.

Consequently we would advise trimming from the base up to the lower edge of the girls sleeve, and in from the right to eliminate about half the width of the girls arm at the shoulder. A small amount added to

the left to give space in front of the man's face would not be amiss.

Data 4x5" Willo View; 5" Goerz Dagor, using rear element only, giving 10" focus; 1/2 sec. at F:64, on E.K. S.S. Pan., in M.Q. Borax; Defender Velour Black T in D-73 diluted 8 to 1.

## Fifth Award

Amateur Class

■ We feel that Mr. Kelly has found an excellent subject in "The Crystal Tree" and that he has seen and composed it very well, although the black tree trunk in the upper right corner might well be trimmed away. The charm of a subject of this kind lies in the glitter and texture of the snow and ice, and in order to obtain these qualities the sharpest possible definition must be obtained combined with technical perfection in the exposure and processing of the film. The print is lacking both in definition and in brilliance, otherwise it might have achieved a much higher place in the competition.

Data: Leica D; 1/25 sec., at F:8; Perutz with Leica #2 filter, in Rodinal; print on E.K. P.M.C., in M.Q.



"The Crystal Tree"

James A. Kelly

(List of Contributors on Page 449)



# Cinema Section

Edited by

William A. Palmer

## Controlling Sunlight

It would be difficult to find an amateur cine worker who is not aware of the use of reflectors to control light when working outdoors. Yet many continue to expose their films without the benefit of the help that reflectors can give. This is unfortunate, and like many other unfortunate situations, something should be done about it. It is axiomatic in motion picture circles that the use of reflectors can make the difference between a common place snap shot and a scene that rivals the best work of professionals.

The underlying principle in the use of reflectors is simply an equalization of highlight and shadow illumination to the extent that the camera can record the range of half-tones more nearly as the eye sees them. The camera cannot record the extreme contrasts in light and shade and it is necessary to reduce those contrasts by illuminating the shadows. Let us look at figures 1 and 2 to see what this means. Figure 1 is a typical close-up taken in the bright sunlight without the aid of reflectors. Here the sun is fairly high and casts deep shadows of the chin and nose. The eyes have practically no detail, being set in inky niches. Figure 2 is taken under practically the same conditions except with a reflector to illuminate the shadows. Notice the great improvement in the eyes. Now there is plenty of detail and each eye has a little "catch light" (the reflection of the reflector) which gives a sparkle entirely absent in figure 1.

Having seen the improvement which a reflector can make in one simple case, we might go on to consider a number of different conditions in which light controlled by reflectors is most useful.

With all sorts of portraiture, closeups of people young or old, the picture can be made more pleasing and flattering to the subject if the light falling on the front of the face is soft and diffused as contrasted to the very harsh light from the direct sun as shown in figures 1 and 2. The classic advice to the Brownie owner, to keep the sun at his back and let the subject squint, is no longer given in good faith and, indeed, it can almost be said that the most successful outdoor portraits are made with the sun in any position other than at the back of the photographer. The relation of the subject to the sun, of course, has an infinite number of possible variations, but there is one arrangement that would be well to emphasize here. It is an arrangement that will be found to be useful in giving a good illusion of roundness, setting the cine subject apart from the background. Figures 3 and 4 shows the set-up and the result. The sun is allowed to shine on the back of the sitter and from slightly to one side. The reflector is then placed on the other side to reflect a portion of the light back to illuminate the dark side of the face. Notice that the reflector is placed high enough so that the front light on the face does not appear to be coming from the ground.



Fig. 1



Fig. 2

Many excellent photographic effects can be made when the subject is placed entirely in the shade. In this case the lighting is very soft and even and incidently apt to give the most flattering representation of one's features. But the effect can be still further improved by adding some highlights which can be reflected into the shaded area by a reflector placed in the adjacent sunlight.

When interiors are photographed, especially if electric current for photoflood lamps is not available, reflectors can often provide the necessary light. When working near a window, a single reflector should be used, placed to reflect light on the side of the subject away from the window. To illuminate a whole room without the aid of artificial light, it is possible to "boost" more light in the windows by the use of a large mirror and then distribute the light within the room by ordinary reflectors. This amounts to a double reflection of sunlight. The rays first are reflected by the mirror which is placed outside. The reflected rays are not scattered but are thrown in an intense beam in a manner familiar to anyone who has played with a small mirror in the sunlight. Once inside the room these "hard" rays can then be intercepted by regular reflectors and then diffused as they are made to illuminate the dark corners. The mirror which is placed outside can be conveniently mounted on center pivots, like those on an ordinary dresser, so that

the mirror can be adjusted to the proper angle. As a matter of fact, a dresser complete with no alterations, can be pressed into service. It will furnish both the mirror and the support, allowing an adjustment for any angle. The only problem would be domestic diplomacy in regard to the use of furniture in this way.

The reflectors need not be laid off even when artificial lighting is used for interiors. Their use to lighten up shadows cast by the incandescent units and to conserve on the total wattage necessary for full exposure by turning back "spill" light is certainly to be recommended. Furthermore, the light from artificial units is more diffused when it comes reflected from the reflectors and is highly desirable for front lighting of faces. The arrangement shown in figures 3 and 4 for natural light can be duplicated with artificial units if a single brilliant light source is placed above and behind the subject and a reflector used to lighten the front.

The foregoing discussion is by no means a complete exposition of the possibilities of reflectors, but it is hoped that this truth is made obvious: Since cine photography is primarily concerned with registering images with light, the use of reflectors in some scenes to control that light is just as important as the diaphragm on the lens.

#### Construction of the Reflector

Two of the most obvious reasons why reflectors are not used as much as they ought to be are that there is a good deal



Fig. 3



Fig. 4

of uncertainty as to what constitutes a good reflector and it is sometimes a great nuisance to carry the reflectors around from place to place and find the extra people to hold them while the pictures are taken. The following suggestion for reflector construction should eliminate some of the objections toward their frequent use.

Reflector surfaces are of two kinds, "soft" and "hard". The "hard" surface is made by gluing pieces of tin foil on a flat surface. This type gives a very bright reflection, useful in shooting some long shots, but ordinarily much too harsh for close-ups. The "soft" reflectors are either matte white or, more brilliant, aluminum surfaced. The aluminum surface is the most satisfactory for general use and so it will be described.

As shown in figure 4 the reflector is built on a light rectangular frame of dimensions 2 by 3 feet. The frame is reinforced at the corners with triangular plywood plates. The frame is then covered with a sheet of heavy show card or poster board. It is then ready for the aluminum surfacing.

A coat of ordinary clear spar varnish is applied over the surface of the show card and allowed to dry for an hour or so until it becomes "tacky". Then some dry aluminum powder is tied up in a small cloth bag (an old salt sack is just the thing) and the drying varnish sur-

face covered with the powder by shaking the bag rather vigorously. When the surface has been completely covered it is allowed to dry thoroughly and then the excess aluminum powder is brushed off. This procedure gives a very nice even coating which is almost impossible to obtain with a regular aluminum paint. Gold powder or gold tin foil is sometimes suggested as a good reflector surface when using panchromatic film. This suggestion is based on the supposition that the yellow colored light is especially fine for the pan emulsion which has a high sensitivity in the yellow end of the spectrum. The gold surface, however, is not recommended because it has a low efficiency (the fact that the light reflected is yellow indicates an absorption of light of other colors) and it is very difficult to judge the balance of the light by the eye when arranging a shot.

When the reflector has been completed, a means for supporting it while in use is very desirable. The support illustrated in figure 4 is made by the use of an Optipod attached to a strip of wood which is nailed across the back of the reflector. The Optipod is then mounted on a tripod which allows a very flexible means for adjusting the reflector position. The ball and socket joint on the Optipod enables the reflector to be turned at any angle. It may seem a bit extravagant to devote a tripod to the job of reflector holder and

many would prefer to use some other support. The folding stands for incandescent lighting units can be made to serve excellently for this service or special stands can be fashioned from wood with little trouble. The important point is that a reflector stand is necessary for the best work. The conventional method of resting the reflector on the ground, braced with a stick at the proper angle to throw the light back on the scene, is not satisfactory for all cases because the reflected light then comes from a very low angle, resulting in unsatisfactory lighting for close-ups. The light from the low angle illuminates under chins and noses, giving an unpleasant representation of the face. The proper position for the reflector when used as front light on a close-up is slightly above the head of the subject.

Ordinarily one reflector will be found adequate for close-up work, but for unusual cases and for long shots three reflectors are usually needed. A good plan is to make one reflector complete with

stand and two others without stands for long shots.

### Questions and Answers

**Question:** Is there any difference in the screen effect when masks are placed before the lens in a matte box instead of just before the film as is the case with the Cine Special?

**Answer:** Yes. When the masks are used in the special mask slot immediately in front of the film, the edges of the mask appear much sharper than when the mask is used in a matte box. Professionals use both positions for their masks depending up on the effect desired.

**Question:** If film jams in the camera is it possible to open the camera up without fogging the whole roll?

**Answer:** Yes. With the new anti-halation backing that is now put on cine film, the camera may be opened in a subdued light when trouble develops and the loss due to fogging will amount to only two or three feet.

## The Amateur and His Troubles

### Cutting and Mounting Bench

Whether one makes prints for commercial uses, for Salon exhibition, or to show to or present to friends the proper mounting of these prints adds much to their attractiveness.

Cutting up the various mounting stocks, trimming the prints, embossing, retouching and pasting are very much simplified and expedited when the supplies and equipment are centralised in a combined cupboard and bench similar to the one shown here.

This bench cost me \$8.75 including the old sixteen by twenty press which I picked up in a junk yard for \$2.50. The bench dimensions are 30"x42"x56". The frame work was made from two by fours and

then surrounded and enclosed by five sixteenth inch plywood. The top was first covered with common one inch lumber over which was screwed a piece of plywood to form a smooth working surface. The built-in cutting blades will cut heavy card stock up to twenty-two inches wide and were shaped for me, from old auto spring leaves, by a blacksmith.

A wooden frame carrying a piece of plate glass is hinged on the two standards as shown. When the frame is down as shown in Fig. 1 this makes a convenient surface, with a light underneath, upon which to emboss prints or mounts and by masking off the portion not needed can be used for retouching and opaquing.



Fig. 1



Fig. 2

When this same frame is turned back it leaves a large smooth work space for many uses.

As a final suggestion; draw any guide lines you may desire on the bench top and then varnish it to keep out moisture.

## Competition Contributors

### AMATEUR COMPETITION

W. F. C. Anderson  
Dr. H. C. Atwood  
Ralph M. Bair  
Helen Louise Barham  
F. M. Beckett  
H. C. Benedict  
M. S. Benedict  
Heinz Bertelsmann  
Wm. B. Bland  
F. H. Boyd  
Robert N. Bushman  
Roland Calder  
K. H. Choy  
Margaret B. Clarke  
Raymond B. Collier  
Mrs. Isabella Conner  
Clifton Cowee  
Emelia Anderson DeEds  
A. B. De La Vergne

Charles Ditchfield  
Dr. Irving B. Ellis  
D. S. Fraser  
Mortimer Friedman  
I. L. Gartland  
Johanna E. Heim  
Boulton Hertzog  
Reynold A. Holmen  
Delbert E. Jack  
Cyril Jasmin  
Jas. A. Kelly  
Miss Thelma R. Kent  
Ray Kuhn  
W. Dovel Le Sage  
Harald Lidell  
Charles R. Lyser  
I. W. McBride  
W. J. McCune  
J. W. McManigal

Richard H. Mercer  
C. F. Monrad  
Paul Nelson  
Don Kirby Oliver  
Harry E. Perl  
C. F. Petit  
Frank X. Reilly  
Ralph Rex  
F. L. Rogers  
Alajos Schuszler  
George Scott, Jr.  
George Semonsen  
Willy Sieler  
Alex Silverberg  
Newell C. Tune  
Charles Willey  
Wm. E. Wing  
Miss A. Zachary

### ADVANCED COMPETITION

Edward Alenius  
Jack Arnold, Esq.  
F. G. Ashton  
Laurence Berman  
A. F. Burritt  
Julius Cindrich  
Fred E. Crum

Evelyn Curtis  
M. K. Curtis  
James Emmett  
Christine B. Fletcher  
Norman Rhoads Garrett  
H. I. Goode  
Henry L. Gosden

Virna Haffer  
Irving Haines  
Lionel Heymann  
Roy X. Jones  
H. F. Kells  
John Muller  
Samuel Norstein



C. L. O'Brian  
P. H. Oelman  
Francisco M. Quesada  
D. Schneider

M. Shimoda  
Karl E. Siegel  
Dr. Max Thorek, F.R.P.S.

W. J. Turnbull  
Joseph L. Underhill  
George D. Vernon

# Correspondence

## Consider the Contributor

Dear Sir:

Along with the recent increase in the number of photographic salons, it is no doubt a common wish of salon committee and contributor that all salons be highly successful. One requisite for success is that the jury have a large number of desirable prints from which to choose. This leads to the thought that contributors should be encouraged to send in their best. One means of encouragement is accomplished when the salon committee follows practices which appeal to the sender.

First are listed some practices which do appeal to one who has submitted a modest number of prints during the last twelve months.

1. Chicago, Princeton, Oakland and Detroit sent out cards telling the entrant the number of his prints accepted, before or about the opening date of the exhibition. Boston even delivered a catalogue before the opening date.
2. Princeton and Portland returned the prints within a week or two after the close of the exhibition.
3. The backs of mounts returned from Los Angeles (All American) carried a record of the jury's rating on each print. Such information is of great help

to a beginner. Something of the same sort has been promised from Detroit (*Camera Craft*, April 1934).

4. Most sets of prints were returned in good condition, in the original wrapping and special packing made for them.

Next are listed some observed practices which by comparison do not encourage one to submit prints a second time.

5. No information was received until after the close of the salon, when the prints were returned with a catalogue. In some other cases the catalogue was received before the prints but not until near the closing date of the salon.
6. One set of prints was not received on the return trip until more than ten weeks after the closing date of the show. An inquiry was sent about six weeks after the closing date together with a return post card with a blank for estimated shipping date, but the card did not come back.
7. One set of prints was returned in flimsy packing, other than the original, with the mounts warped and corners jammed.

Very truly yours,  
H. W. Wagner.

# Club Notes

## Camera Craft Traveling Salons Print Directors Please Read Carefully

We have received a surprisingly large number of requests for the *Camera Craft* Traveling Salons, so large in fact that if we were to route a single exhibition to the entire group allowing ten days showing to a club, the schedule would not be completed until Oct. 1936. It is obviously ridiculous to schedule prints so far in advance, so we have arranged a routing by means of which one or the other of the two groups of prints will reach all applicants within a year. All accept two or three of the clubs have requested that all of the groups of prints be sent to them, and we will be glad

to make up a second schedule, so that both groups will reach all clubs, when the present tour is completed. It will probably be necessary to re-mount the prints before this can be done as they are likely to be badly damaged, and this is a second reason why each club is to receive only one of the groups at this routing.

### Third Show To Be Ready Soon

Those who are far down on the list may be consoled by the fact that a third group of prints will be ready for routing in January 1935 and these will be sent first to those who are at the end of the present two schedules. By this means a number of the clubs will receive this third group before the group on the routing listed below reaches them. Thus they will be at the head of the list for the third group as a reward for being patient in the present instance. A route schedule for this third group will be published in our Dec. or Jan. issues. In compiling the schedule we have tried to be as fair as is humanly possible, and no favoritism has been shown any club outside of our keeping promises made some time ago to the Chicago Camera Club and the Schenectady Photographic Society. The first consideration has been economy of transportation charges, and almost every club will find that they will not be required to ship the exhibit beyond the second or third postal zone. Clubs will therefore be put to very little expense in viewing these shows.

Where two clubs within the same city have asked for the shows we will be careful to see that the order in which the first show is routed is reversed for the second show, etc.

### About These Shows

To be sure that all understand the nature of these exhibitions we explain that they are made up from the prize winning prints in the **Camera Craft** Monthly Competitions. The two shows now ready comprise prints from the Oct. 1933 to and including the July 1934 competitions. Every six months a new show of 60 prints will become available. Thus show number 3 will be ready in January 1935, show number four in July 1935 show number 5 in January 1936, etc.

The shows are made doubly interesting and instructive because of the fact that a criticism of each picture appears on the face of the mount, and also it is possible to hang the shows in the order in which our judges placed the prints, and thus review the decisions of the juries.

Those clubs which have sent in their requests for all shows will automatically be included in the routing of each exhibition as it becomes available. Below we give the routing for groups number 1 and 2.

### Group I

Chicago Camera Club, Chicago, Illinois, Sept. 1st-20th.

Schenectady Photographic Society, Schenectady, N.Y., Sept. 24th-Oct. 5th.

Detroit Edison Camera Club, Detroit, Michigan, Oct. 9th-19th.

Miniature Camera Club of Detroit, Detroit, Michigan, Oct. 20th-29th.

Lansing Camera Club, Lansing, Michigan, Nov. 1st-8th.

Midland Camera Club, Midland, Michigan, Nov. 10th-20th.

Cleveland Photographic Society, Cleveland, Ohio, Nov. 23rd-Dec. 2nd.

Portage Camera Club, Akron, Ohio, Dec. 4th-14th.

Canton Photographic Society, Canton, Ohio, Dec. 16th-26th.

#### 1935

Photographic Society of Cincinnati, Cincinnati, Ohio, Dec. 29th-Jan. 8th, 1935.

Camera Club of Cincinnati, Cincinnati, Ohio, Jan. 10th-20th.

Erie Camera Club, Erie, Pa., Jan. 24th-Feb. 2nd.

Aluminum Camera Club, New Kensington, Pa., Feb. 5th-15th.

Photographic Section, Academy of Science & Art, Pittsburgh, Pa., Feb. 17th-20th.

Westinghouse Camera Club, Wilkesburg, Pa., Feb. 22nd-Mar. 2nd.

Lancaster Camera Club, Lancaster, Pa., Mar. 5th-10th.

Reading Camera Club, Reading, Pa., Mar. 14th-24th.

Photographic Society of Philadelphia, Philadelphia, Pa., Mar. 27th-Apr. 7th.

Glenwood Camera Club, Philadelphia, Pa., April 9th-19th.

Brooklyn Institute of Arts & Sciences, Department of Photography, Brooklyn, N.Y., April 21st-May 1st.

Newark Camera Club, Newark, N. J., May 3rd-13th.

Orange Camera Club, East Orange, N.J., May 15th-25th.

Passaic Camera Club, Passaic, N.J., May 27th-June 5th.

Camera Club of the Brooklyn Union Gas Co., Brooklyn, N.Y., June 7th-17th.

Hartford County Camera Club, Hartford, Conn., June 20th-30th.

Camera Associates of the Boston City Club, Boston, Mass., July 3rd-16th.

Boston Y.M.C.A. Union Camera Club, Boston, Mass., July 18th-28th.

Portland Camera Club, Portland, Maine, Aug. 2nd-12th.

Greater Lynn Camera Club, Lynn, Mass., Aug. 15th-25th.

Jamestown Camera Club, Jamestown, N.Y., Aug. 28th-Sept. 6th.

The Kodak Camera Club, Rochester, N.Y., Sept. 9th-19th.

Raytar Camera Club, Rochester, N.Y., Sept. 20th-30th.

Camera Club of Syracuse, Y.M.C.A., Syracuse, N.Y., Oct. 3rd-13th.

## Group II

Pictorial Photographers of Victoria, Victoria, B. C., Canada, Sept. 1st-10th.

Seattle Photographic Society, Seattle, Wash., Sept. 13th-23rd.

Spokane Camera Club, Sharon, Wash., Sept. 26th-Oct. 5th.

Oregon Camera Club, Portland, Oregon, Oct. 8th-18th.

San Jose Camera Club, San Jose, Calif., Oct. 21st-23rd.

Taft Camera Club, Taft, Calif., Oct. 26th-Nov. 2nd.

Bakersfield Camera Club, Bakersfield, Calif., Nov. 5th-15th.

Tripod Pictorialists, Covina, Calif., Nov. 18th-28th.

Whittier Camera Club, Whittier, Calif., Dec. 2nd-12th.

## 1935

Hamilton Camera Club, Hamilton, Ont., Canada, Dec. 18th-Jan. 5th, 1935.

Fort Dearborn Camera Club, Chicago, Illinois, Jan. 9th-19th.

Bessemer Park Camera Club, Chicago, Illinois, Jan. 22nd-Feb. 1st.

Camera Kraft Club, St. Cloud, Minn., Feb. 4th-14th.

St. Paul Camera Club, St. Paul, Minn., Feb. 17th-27th.

Omaha Camera Club, Omaha, Nebr., Mar. 3rd-13th.

Lincoln Camera Club, Lincoln, Nebr., Mar. 16th-26th.

Camera Pictorialists of Kansas City, Kansas City, Mo., Mar. 30th-Apr. 9th.

El Paso Camera Club, El Paso, Texas, Apr. 13th-23rd.

Austin Camera Club, Austin, Texas, Apr. 27th-May 4th.

Oklahoma Camera Club, Oklahoma City, Okla., May 9th-19th.

Miniature Camera Club of Louisiana, New Orleans, La., May 23rd-June 1st.

Nashville Camera Club, Nashville, Tenn., June 4th-14th.

Camera Associates of Huntington, Huntington, W. Va., June 17th-27th.

Telephone Camera Club of Manhattan, New York, N.Y., July 1st-12th.

Frankford Camera Club, Frankford, Philadelphia, Pa., July 16th-26th.

Telephone Camera Club of Washington, Washington, D. C., July 30th-Aug. 9th.

Baltimore Camera Club, Baltimore, Md., Aug. 12th-22nd.

Delaware Camera Club, Wilmington, Del., Aug. 26th-Sept. 4th.

Brooklyn Edison Camera Club, Brooklyn, N.Y., Sept. 7th-17th.

New Brunswick Camera Club, New Brunswick, N.S., Canada, Sept. 22nd-Oct. 1st.

The Camera Club of Ottawa, Ottawa, Ont., Canada, Oct. 6-16th.

## Fifty Dollars in Prizes for Amateur Photos

Popular Science Monthly, 381 Fourth Avenue, New York, is announcing in its November issue the first of a new series of monthly contests for amateur photographers. The first prize is \$25, second prize \$15, third prize \$5, and there are five additional prizes of \$1 each. Prints should be mailed not later than December 1, 1934, and marked "November Photo Contest." The name and address of the photographer should be written on the back of each print, together with a note as to the type of lighting used—daylight, photoflash bulb, photoflood lamps, or other artificial illumination. It is not necessary to send in the films. No print will

be returned unless a self-addressed, stamped envelope is inclosed. There are no restrictions whatever in regard to size, subject matter, or the number of prints a contestant may submit. The developing and printing may be done by a professional photo finisher.

#### **Brooklyn Institute of Arts and Sciences— Dept. of Photography**

The Dept. of Photography of the Brooklyn Institute of Arts and Sciences will act as judges for a contest in amateur photography to be run by the newspaper, "The Brooklyn Eagle" from August 15th to September 15th.

The Institute's season will begin Sept. 25th with a lecture by Eugene Hutchison.

Classes will begin the end of September and beginning of October. There will be five this winter, all open to the public.

1. Fundamentals of Photography by Herman DeWetter.
2. Advanced Technique of Photography, Adolf Fassbender, F.R.P.S.
3. Advanced Course in Portraiture & Pictorial Composition, Adolf Fassbender.
4. Beginners' Course in Miniature Photography, Adolf Fassbender, F.R.P.S.
5. Course for Advanced Miniature Workers, Adolf Fassbender, F.R.P.S.

All classes will be held at night and they will meet every two weeks. In addition to the regular lectures and demonstrations, there will be outings to provide instruction in the field, and a consulting period will be set aside before the opening of each session, to give students an opportunity to consult with the Instructor on individual problems.

An exhibition of the work of students in last years' classes is now at the New York Camera Club. It will be at the Hotel Martinique at 32nd St. and Broadway Sept. 4th to Sept. 15th. In October it will be at the Institute.

#### **Ralph Young Courses in Photography**

Ralph Young, well known Illustrative Photographer of San Francisco will be the instructor in a course in photography which will start at the Rudolph Schaeffer School of Design, 139 St., Anne Place, San Francisco, on Sept. 2, 1934. 10 weekly Wednesday night meetings will be held

between the hours of 7 P.M. to 9 P.M. The course is designed to meet the requirements of the average amateur photographer, with sufficient ground work included to make it suitable for the beginner in photography as well. Mr. Young plans to place special emphasis upon the proper use of light as one of the most important elements contributing to the success of photography of the better type. He will also devote considerable time to the subject of composition, and one of his chief aims will be to develop in his students the ability to use the camera as a medium of personal expression. There will be sufficient laboratory work to establish the basis of a sound technique.

#### **Fort Dearborn Camera Club**

The Fort Dearborn Camera Club has, for all the Heat and Humidity had a busy and eventful season. Following the course in photography conducted by Messrs. Gurrie, Hazlehurst, and Silverstein, a considerable number of new members were enrolled. Some of these are by their own confession "rank" amateurs, others are "just" amateurs, while a few rate as Old Timers.

Among the latter is Mr. F. K. Lawrence, who is also a member of the Miniature Camera Club. He demonstrated his photographic prowess early, by walking off with the prize given for the best picture submitted by members of the class.

Immediately upon the heels of the school came the competition for the Weston Exposure Meter. This was won by Mr. L. H. Longwell, our print director. The presentation was made by Mr. Gurrie in a stirring five word address, responded to by the winner with a carefully prepared two word speech.

The Century of Progress has been an ever present temptation to photographers in general and to "night shooters" in particular. Under the leadership of Mr. Silverstein several groups tried their luck at this latter type of work, to the joy and comfort of the film manufacturers.

The regular weekly meetings have been held throughout the summer. Interesting talks have been given by both members and non-members. The monthly print

criticisms conducted by Mr. H. K. Shigeta continue to be the high spots of the month's activities. They have been well attended, and at each of them new and interesting prints have been shown.

A new activity is being sponsored by Mr. Gurrie, with the assistance of Mr. Silverstein, in which in addition to the regular work, prints of specially assigned subjects are to be presented. It is hoped that this directed effort will bring out fresh view points and methods of treatment.

#### **California Camera Club**

One of the fall activities of this well known organization will be the School of Photography for beginners, under the direction of Roland Calder. The class is designed particularly for the amateur who wants to graduate from the Drug Store and wants experience in doing his own developing and printing. Demonstrations and talks on the various processes will be followed by actual practice by the class members in the well equipped workrooms of the club. The course will consist of six meetings, and one field trip. Non-members of the club may enroll at the first meeting on Thursday, September 13th, by payment of a small fee. All those interested are invited to be present at this meeting at which there will be a demonstration of contact printing.

#### **Bland H. Casebolt to Address Club**

On Tuesday Sept. 4th, Mr. Bland H. Casebolt will address the California Camera Club on the subject of Print Quality from the Scientific Angle. Mr. Casebolt is well known for his research work in the field of fine grain development, and allied subjects, and for his articles for the miniature camera user appearing in this magazine. His home is in Fresno, Calif., where he is the photographic expert for the Twinning Laboratories, one of the most completely equipped testing and research laboratories on the Pacific Coast. This is the first time that Mr. Casebolt has lectured in San Francisco, and a large attendance is expected, especially from the ranks of the minicams, although his talk will obviously be of interest to all photographers. Admittance will be by invitation. Any one desiring to attend may obtain an invitation from the secretary of the club or from the office of this magazine.

This program will inaugurate a series of monthly meetings with programs of unusual interest for the miniature camera user. It will pay minicams to watch for the announcements of these programs or better yet write to Mr. Horn, Sec., California Camera Club, 45 Polk St., San Francisco, and request that your name be placed on their mailing list.

## **Notes and Comments**

#### **Minaco Products**

Young in years but strong in vitality and new ideas the Miniature Camera Accessories Co., manufacturers of Minaco products, are bringing the experience and efficiency of American engineering knowledge to the field of miniature camera equipment. Ace item in their constantly growing line is the Minaco Projector-Enlarger, an unusually convenient, precision-built instrument, discussed in these pages in our July issue. Since then a new model B has been placed on the

market which utilizes a stele geared rack and pinion movement for adjusting the position of the machine with respect to size of image and framing of picture. Don't fail to see this at your dealers.

The firm engaged in extensive research to determine the best material for the construction of developing tanks, and as a result of their investigations the new Minaco Developing Tank, for miniature negatives is constructed of monel metal. The apron which carries the film during development is of a special type of cellu-



loid, treated to withstand staining or hardening by the action of the processing solution. Especial care has been taken to eliminate all recesses or protrusions, so that the tank is kept clean with a minimum of difficulty.

The Minaco Rheostat is ready for use on all types of enlargers, and is very useful in adjusting the light power so that a reasonable exposure may be given to either dense or thin negatives without changing the light. It is also very valuable in prolonging the life of photoflood bulbs, for by its use the bulb may be burnt considerably below maximum efficiency while adjustments are being made and the lamps need be burnt at full power only during exposures that require the full strength.

The firm issues well prepared pamphlets describing each of their products in detail. Write to Minaco, 712 Townsend St., Chicago, Ill., for these, and keep pace with progress by inspecting this equipment at your dealers.

#### Madison Mart

Three members of the old Herbert & Huesgen organization have gone into new premises at 403 Madison Avenue, calling their completely equipped camera shop the MADISON MART. The three are P. A. Lins, E. F. G. Herr and William A. Kunze. In addition to their camera shop they are operating a film finishing laboratory on the premises. To their many old friends of H & H days they offer, through **Camera Craft**, an invitation to come into the new shop and get acquainted again.

#### Photo Flood-Spot

Here is a decidedly logical and useful development in the field of artificial lighting equipment.—A spotlight utilizing the popular photoflood bulb. The Photo Flood-Spot is sturdily built and reasonably priced. It contains a focusing rod permitting control of the breadth of the beam of light, a 5" condensing lens, folding tripod extending from 2½ ft. to 10 ft., in height, and ten feet of rubber covered cord. Just the thing to complete an amateur's set of home photoflood lighting equipment. Write to Photolites, Inc., 110 W. 40th St., New York, N.Y. for interest-

ing descriptive literature, and examine the Photo Flood-Spot at your dealers.

#### Haloid Nomis

We hope that a large number of photo finishers are taking advantage of the generous trial offer that the Haloid Co. is making on Haloid Nomis. 2,500 sheets, 2¾x4½ for \$5.00. If you haven't tried it you will be surprised at the quality, and latitude of this excellent paper. Clip the coupon from the page advertisement in this issue and mail it in today—you won't be sorry.

#### Tuma-Gas

There is no question but what today, more than ever before, salon juries are demanding first rate print quality, as a prime requisite of acceptable prints. They are looking for that richness and brilliance of texture and tone that is the distinguishing mark of fine craftsmanship. Tuma-Gas is a paper that will help you to achieve those qualities. In the advertising pages of this issue a special trial package of Tuma-Gas is offered at a bargain price, so here is your chance to get acquainted with this unique paper that is so finely suited to the needs of the salon worker. Available only through the sole American distributors, Tuma-Gas, Inc., 1170 Broadway, New York, N.Y.

#### New Goerz Catalogue

C. P. Goerz American Optical Co., 317 E. 34th St., New York, N.Y. have just published a new catalogue in which their splendid line of high grade lenses and accessories are described in detail. The Goerz Cine lenses are included, as are the Panorth filters, the Effect Device and Mask Box, and the focusing device for 16 mm. movie cameras. Write to the above address for your copy.

#### National Graflex Series II is Here!

Combining all the advantages of National Graflex with **seven** new and splendid features, **National Graflex Series II**, just announced, is deservedly attracting the serious attention of camera users.

National Graflex Series II does not displace the regular National Graflex from the Graflex line; it is a **new addition** to it.

This new camera has all the proven features of National Graflex — Graflex

Focusing Hood . . . Graflex Focal Plane Shutter . . . in-built focusing magnifier . . . exclusive exposure guide . . . automatic film measuring meter . . . film lock that automatically keeps film in a taut focal plane . . . the provision for ten pictures from 8-exposure film roll . . . fast f.3.5 B&L Tessar lens.

But, National Graflex Series II goes far beyond this. Let's inspect at close range the seven new features:

1. **The Telephoto Lens**—A fine 140 mm. f.6.3 B&L Telephoto Lens developed especially for National Graflex Series II, interchanges easily with the standard lens—provides scores of new picture possibilities.
2. The spring-actuated top cover **zips** into place.
3. Re-located controls give more finger room; simplify and speed up camera operation.
4. An in-built ruby window cover protects panchromatic films.
5. The single control lens door is a fine convenience you will like.
6. The new L-B control is more positive in action; speeds up the change-over from instantaneous to "bulb" exposures.
7. The newly designed shutter winding-setting knob works "as smooth as velvet". It is bigger, easier to use.

These new cameras not only set a new standard of precision camera construction. They possess a simplicity of operation combined with features assuring wire-

sharp negatives that are sure to appeal to camera enthusiasts everywhere.

#### New Accessories

Not only will the Telephoto Lens, giving an image almost double the size obtained by the standard lens, be a welcome addition; there are other accessories offered which are of great attraction.

A new carrying case which suspends the camera on the chest for operation (eliminating the necessity of removing the camera from the case when using it) has been developed. This case, called the "Sportsman's Carrying Case", is smartly constructed and is one of the most practical accessories yet evolved. It can instantly be adjusted so that the camera rests either high on the chest (in picture-making position) or low at the side for carrying.

Complete accessories are available for the new Series II National Graflex outfit, including a choice of three carrying cases; a carrying case for the Telephoto Lens; lens sunshade; complete set of filters, including K-1, K-2, X-1, X-2, Sky, A, F, G, Aero #1 and Aero #2; Copying Attachment; a case for these filters; Crown Jr. Tripod and the Crown Unit Tripod.

If you haven't had an opportunity to see this new outfit, but would like to have more information about it, we suggest that you clip the coupon from the Graflex advertisement. Complete information regarding National Graflex Series II will be sent to you with the compliments of the manufacturer, Folmer Graflex Corporation, Rochester, New York.

## Our Book Shelves

**Practical Photography and Amateur Cinematography.** Published by Newnes, of London, Sole American Agents, Wiloughby's, New York. 56 pages, 7"x10", paper covers, price \$.50.

We don't exactly know whether to call the above publications a series of books or a magazine which will be issued for

a limited time only. Whatever the designation the plan is to issue the books at two week intervals, and the series is to be complete in about 20 installments, the whole to comprise a complete, comprehensive, and practical treatise on still and cine photography.

The books are made up in magazine style, that is, an obvious effort is made

to appeal to all types of readers in each issue. Although this plan does work against a logical ordering of subject matter, considering the 20 books as a whole, we believe that if a good index is included in the last volume this difficulty will be largely overcome. Each issue contains from twelve to fifteen articles of varying lengths, all illustrated, and the article of greatest pictorial interest is favored with four pages of photogravure reproduction. The various important subjects that require extensive discussion will naturally be carried through a number of issues, although each article is always complete in itself. We have always felt that the English have an unusual talent for explaining things in simple, understandable fashion, and these early issues, which deal with the beginnings of each subject, corroborate that impression and consequently are wonderfully helpful to the amateur of limited experience. Parts 1, 2 and 3 are now available and others will have been published by the time this appears in print. The General Editor is Mr. Edward Molloy, Advisory Editors are: Mr. George E. Brown, F. I. C., Hon. F. R. P. S., Editor of the "B.J.", and Mr. Percy W. Harris, F.A.C.I. Dealers should send their orders to Willoughby's, 110 W. 32nd St., New York, N.Y.

**Photo-Markets.** Published by John P. Lyons, Baltimore, Md. 66 pages, paper covers, price \$.50.

Editor John P. Lyons has worked out a splendid system for presenting his information in this third edition of Photo-Markets, a market guide for the free-lance photographer and journalist. The 1500 individual markets are carefully classified under 61 group heads, which is very helpful in determining the particular markets to which ones material should be sent. There is no padding and no guess work in the volume, each market has been carefully checked by direct correspondence with the editor. In practically every case a full description of the requirements of each market is given, usually by a direct quotation from the editor. Also listed is the length of articles, rates on

articles and photographs, and time of payment. In the front of the volume are brief but helpful chapters on: The Market for Photography, What to Shoot, Where and How to Get It, How to Submit Your Material, and Copyright Laws and Your Rights.

**The Art of Coloring Photographic Prints,** by J. Carroll Tobias. Published by American Photographic Publishing Co., of Boston. 108 pages, 6x9", cloth covers, price \$1.50.

Mr. Tobias presents a sound and complete analysis of the methods of coloring photographs in water colors, and oils, and also discusses two methods seldom employed in coloring photographs, namely Tempera and Pastel painting. These two methods are capable of producing lovely results, but admittedly demand a greater degree of skill in drawing and painting than the average photographic colorist brings to his work.

Particularly helpful to the beginning colorist will be Mr. Tobias' remarks regarding the observation of color in nature, for in our experience it is lack of training in this respect that causes a great deal of the initial difficulty. Coloring of lantern slides is also covered.

**The Secret of Exposure**  
**Practical Retouching**

**How to Make Lantern Slides,** Published by American Photographic Publishing Co., of Boston, Edited by Frank R. Fraprie, paper covers, price \$.50.

The above titles are revised and enlarged editions of numbers 1, 9, and 7 respectively of the well known Practical Photography Series. The second and third of the above titles remain substantially the same as in previous editions as no major changes in the technique of these to subjects have taken place since the previous editions were printed. The Secret of Exposure however has been greatly revised to include a thorough discussion of the newer exposure meters, especially the meters of the photo-electric type. A splendid discussion of the proper use of such a meter is given, and the book as a whole presents a sound analysis of all the important problems of exposure.

# Classified Advertisements

This is purely a convenience department for the reader and for that purpose offers Classified Advertisements at cost. 4 cents a word: minimum \$1.00 each insertion. Dealer merchandising ads must be placed in display space at 30 cents per agate line, 10 agate lines minimum. Position Wanted ads, one insertion free. Copy for this department must reach us on or before the 15th and in every case be prepaid.

Items advertised in these columns may be purchased C.O.D. subject to examination and C.O.D. subject to ten days free trial if sent by express. If in doubt, safeguard yourself.

## OUTFITS FOR SALE

◆1-A Graflex T & H Cooke f:4.5 lens, with case, good condition, \$25.00. 16 mm. Projector, DeVry Model G 200 Watt, with case, good condition, \$25.00. J. B. H. c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆6½x8½ Beach Multifocal lens in Betax Shutter; 14-16 in. Graf Variable Anastigmat, both practically new; 5x7 Ansco Universal View, in case, 6 double film holders, practically new. Sell part or all at 50% off. Additional information write A. R. c/o Camera Craft, 703 Market Street, San Francisco, Calif.

◆Contessa-Nettel, 10x15 cm. Zeiss f:4.5, 16½ cm. focus, in compur. 3 Distars, 2 filters, filter holder, 2 plate holders, and film sheaths, f.p. Adapter, case, \$50.00. Address P. H. F., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆Kodak 1½x2½ Vest Pocket, F:4.5 lens, Diamatic shutter, Seal leather case, like new, only \$15.00. Binocular, 7x24 Wide Angle S & A angular field 59°, case and two straps, cost \$41.50, only \$15.00, like new. G. D. Macmillan, 4510 Beacon St., Chicago, Ill.

◆Carl Zeiss Miroflex Model B, F:2.7 Tessar, plate focus, in compur. 10 inch Carl Zeiss Tele-Tessar, \$40.00. 6 inch F:4.5 Carl Zeiss Tessar \$25.00. Zeiss wooden tripod \$3.00. 6 inch Kodak Anastigmat in shutter \$5.00. Cash only, no trades. C. C. Applegate, 1859 Page St., San Francisco, Calif. Phone EVERgreen 4859.

◆Cine-Kodak, Model "K," f:1.9 lens, black carrying case, with model "C" Kodascope projector. Both same as new. REAL BARGAIN AT \$125.00. Examination privilege. F. D. Stoll, 104 W. Chestnut St., Louisville, Ky.

◆4x5 Graflex D; cut film magazine ;case; f:4.5 7½" anastigmat, K2 filter; Dallmeyer f:4.5 14" Telephoto, filter, sunshade; Dallon Tank; Cut film tank; Practically new. Sacrifice \$160.00. M. H., c/o Camera Craft, 703 Market St., San Francisco, Calif.

## 12 LIGHTINGS \$2.00

Detailed directions for making twelve beautiful portrait lightings, from my \$30.00 Course in Lighting, mailed with twelve floor plan diagrams for \$2.00.

Money back if you are not delighted.

Beattie, 913 N. Sycamore Ave., Hollywood, Calif.

## Miniature Camera Fans!

Liberal Allowance given on your equipment on a LEICA, CONTAX or SUPERNETTEL camera.

Write for allowance.

MINIATURE CAMERA SHOP

1600 Post St., San Francisco

Ph. WA 4484

◆Auto-Graflex 4x5 revolving back, Carl Zeiss Jena Tessar F4.5 lens, plush-lined carrying case, cut film magazine, film pack adapter, ground glass adapter, plush-lined carrying case, K-3 filter and case, Crown tripod and case, cotton focusing cloth—all in excellent condition. Original cost \$325; will sacrifice for \$125 cash. Address E. E. W., care Camera Craft, 703 Market St., San Francisco.

## POSITIONS WANTED

◆Married man, eight years experience general reproduction work, Litho paper negs., and superize photoprints. Go anywhere in U. S. N. D. Nash, 387a First Avenue, San Francisco, Calif. Phone BAyview 3982.

◆Position wanted by an all around photographer including kodak finishing. Prefer Victoria or Vancouver or near by vicinity. Will work for a very reasonable salary. 12 years experience. Homer S. Wyatt, 919 Johnson St., Victoria, B. C., Canada.

◆Kodak Finisher, 18 years experience, steady, sober, fast and efficient. 6 years and 8 years respectively in last positions with largest southern firms in managerial capacity. 32 years old, married. Best references. Go anywhere. Chas. M. Glisson, 631 Fern St., Jacksonville, Fla.

◆Cameraman, Commercial, Aerial and Movie experience, 18 years experience U. S. and Europe. Will prove ability; anywhere in California. Address W. S., care Camera Craft, 703 Market St., San Francisco, Calif.

**SAC**, universal, visual focusing, reproduction and copying device for your LEICA. Portable, rigid and light. Extremely wide range. Accurately and well made. Priced reasonably and unconditionally guaranteed. At your dealer or directly from: SAC, 1600 California St., San Francisco, Calif.

**GOOD ALLOWANCE** for Firearms, Microscopes, Binoculars, and Celestial Telescopes, on any photographic equipment, motion picture or still, and Bausch & Lomb Spotting Scopes, and Binoculars.

**NATIONAL CAMERA EXCHANGE**, 5 South Fifth Street, Minneapolis, Minn.

## CINEX 16 MM. FILM

Regular speed — 100 ft. \$3.25; 50 ft. \$1.75. Nonhalation supersensitive Panchromatic for night shots, interiors and exteriors 100 ft. \$4.50. Processing in San Francisco included. Send for Sample. CINEX FILM LAB., 221 Golden Gate Avenue, San Francisco.



# C A M E R A



"Corner of Greek Theater"

G. H. S. Harding



# CRAFT

REG. U. S. PAT. OFFICE

**OCTOBER 1934**  
**VOL. XLI Number 10**  
**SAN FRANCISCO**  
**• CALIFORNIA •**  
**PRICE 25c**



## In This Issue

**DOROTHEA LANGE . . . . . Willard Van Dyck**  
**OUTDOOR PORTRAITURE . P. D. Anderson, A.R.P.S.**  
**SHOOTING FOOTBALL . . . . . Nestor Barrett**



# PROJECTION CONTROL

By WILLIAM MORTENSEN



The first edition of this book, which covered four methods of controlling a photographic image during enlarging as well as other important material, has been sold out.

The second edition will be delayed as the number of questions that have been received concerning the further applications of Mr. Mortensen's principles of control make it necessary to enlarge the book to a considerable extent.

The new edition will be as complete as it is possible for us to make it in order to satisfy the reader on all questions.

This book will be put on sale during September or as soon before that time as the text and printing have been completed, and it will be an essential in the library of every photographic worker, amateur or professional.



CAMERA CRAFT PUBLISHING CO.

703 MARKET STREET

SAN FRANCISCO

CALIFORNIA



*"Best Results...  
from Best Materials"*

**CONTACT-PRINT QUALITY  
BY PROJECTION WITH**  
*Agfa* **BROVIRA PAPER**

● Experienced photographers find that Brovira projections have all the desirable characteristics which may be obtained by contact printing.

So effectively and consistently does Brovira meet the varying demands of a wide range of negatives that the full depth and roundness of Brovira enlargements, while exceedingly pleasing always, are no longer surprising; they are expected.

Brovira Quality for photographic prints by projection is standard.

**AGFA ANSCO CORPORATION**  
Binghamton, N. Y.



CHICAGO, ILL.  
BOSTON, MASS.

SAN FRANCISCO, CALIF.  
TORONTO, ONT.,

KANSAS CITY, MO.  
LOS ANGELES, CALIF.  
NEW YORK CITY

CINCINNATI, OHIO Agfa Ansco Ltd., 204 King St. East

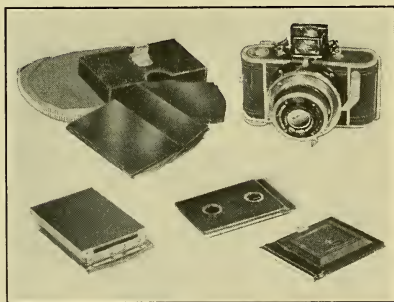
Please mention Camera Craft when corresponding with Advertisers

## MINACO LEADS AGAIN TRANSFORMOGLOBE

Instantly transforms ordinary Globes to Highly actinic Photographic Light sources. Never run out of Photo Floods! Carry a Transformoglobe. Economical, small. Plug it in between the Floor Lamp and the wall plug and you are always ready, for that shot that may come only once in a life time. Made in two Models. Mod. A. For Enlargers accommodates up to 150 Watts. Price ..... **\$10.50**  
Mod. B. accommodates 300 Watts, use 5 Sixty Watt 3-Hundred Watt or any other combination. Price..... **\$14.75**

Ask your dealer for catalog on other famous Minaco Products: The Projector Enlarger, Monel Developing Tanks, Enlarging Easels, Range Finders, Rheostats, Copying Arms, Minicam Fans Demand All American Minaco Products. Lower in Price, Better in Quality. Literature on request.

MINACO, 712 Townsend St., Chicago



## IHAGEE UNIVERSAL • WEENY-ULTRIX •

The most remarkable miniature camera on the market, the Universal Weeny-Ultrix is equipped with film pack adapter, 3 plate-holders and focusing ground glass back. It makes either 8 or 16 pictures on one roll of standard V.P. film and is provided with f/3.5 Carl Zeiss Tessar lens in Compur shutter with speeds up to 1/300 second. Helical mount enables you to focus up to 12 inches. Optical direct-view finder which can be regulated to size of picture. Beautifully made and scientifically constructed. Provided with silk carrying cord and soft leather zipper case.

**HENRY  
HERBERT**

483 FIFTH AVENUE

**\$65.00**

Complete with accessories

formerly with Herbert & Huesgen.

NEW YORK

Please mention Camera Craft when corresponding with Advertisers

# COMING

**How It Was Done.** The series of articles under this title have proved distinctly popular and we are pleased to announce that a number of the most prominent pictorial photographers in the country are now working papers which will appear in this general series. Among those whose articles will be presented in the near future are, H. F. Kells, Ira W. Martin, Thomas O. Scheel and Dr. Max Thorek.

**Forman Hanna** has unquestionably established himself as one of the leading photographers of our time and are therefore proud to present in the near future, paper on **The Photography of the Nude**. Mr. Hanna by no means a "one subject" photographer. He produced many extremely lovely landscapes, and series of pictures of the Indians of the southwest among the best things that have been made with this material. Of late years his outdoor figure studies, have been universally acclaimed wherever shown.

**Beauford B. Fisher** is a name which we believe Camera Craft readers will soon learn to treasure, he reveals himself as an original experimenter, in other words, just the sort of man who has something valuable to say to the student of photography. His pictures have been hung in virtually all of the large Salons throughout the world. He has recently taken up photography as a profession. An example of his work appeared first prize in our Advanced competition for November. We pointed out that this picture was an excellent example of fine technique in the paper negative process in as much as the skin textures had been so well maintained. Mr. Fisher will describe the paper negative process in full detail in the November issue.

**Edwin C. Buxbaum, A.R.P.S.**, whose name is already familiar to the readers of this magazine, prepared a carefully worked out series of four articles on **Miniature Camera Technique** which we know will prove very helpful to all Minicams. The sections on films and filters are of especial value and approach two subjects from a new angle that is most instructive.

**Cecil R. Nelin** will tell just what you want to know in his very instructive article on **Night Photography**. He is a real night photography fan and his enthusiasm is evident in his article to the point of contagion.

**P. H. Oelman** is a successful illustrative photographer, an instructor in photography, and a prominent pictorialist. Several of his pictures have won awards in our advanced competition. He is convinced that practice of still life photography is a most practical method for learning a great deal about both composition and lighting. His article on **Still Life Photography** will be written from that view point.

**George H. Needham, F.R.M.S.**, whose article "Low Power Photomicrography" appeared in our January issue is now working on a second paper which will discuss the ramifications of high power work. This paper will be of great interest to those who are doing advanced work in photomicrography.





*"Visja Calcetera"*

*F. Mora Carbonell*

*21st Pittsburgh Salon*



# The Photographs Of Dorothea Lange—A Critical Analysis

Willard Van Dyke

**D**OROTHEA LANGE has turned to the people of the American Scene with the intention of making an adequate photographic record of them. These people are in the midst of great changes—contemporary problems are reflected on their faces, a tremendous drama is unfolding before them, and Dorothea Lange is photographing it through them.

She sees the final criticism of her work in the reaction to it of some person who might view it fifty years from now. It is her hope that such a person would see in her work a record of the people of her time, a record valid of the day and place wherein made, although necessarily incomplete in the sense of the entire contemporary movement.

One of the factors making for this incompleteness is the camera itself. It must make its record out of context, taking the individuals or incidents photographed as climaxes rather than as continuity. In approaching the subject or situation immediately before her she makes no attempt at a personal interpretation of the individual or situation. Neither does she encompass her work within the bounds of a political or economic thesis. She believes and depends more on a certain quality of awareness in her self. This awareness although perhaps inarticulate through herself (in words) is apparent in her adherence and approach to certain subject material. She is not preoccupied with the philosophy behind the present conflict, she is making a record of it through the faces of the individuals most sensitive to it or most concerned in it. Her treatment of this type of human subject shows her in turn sensitive and



*Dorothea Lange*

sympathetic to the uncertainty and unrest apparent at the present time.

Naturally the range of human emotions which Dorothea Lange now photographs are not those which a sitter expects in a studio portrait. Sixteen years as a portrait photographer have shown her that the subject of a commission rarely sees himself as the camera does, even at its best, and is unlikely to be convinced of the objective truthfulness of the camera. Sitters mistake the lens for a mirror wherein they are wont to see themselves colored by the glamour of their romantic ideas. Of course, in order to please patrons, one must make concessions and this limitation led Dorothea Lange to photographing people with or without their knowledge, outside of the studio.

Most photographers under similar circumstances would have turned to photographing other subject material, or away from photography entirely, but Miss Lange's real interest is in human beings and her urge to photograph is aroused only when human values are concerned.

For equipment she uses two cameras. On any given trip she takes one or the other of these with her, never both. One of these is a  $3\frac{1}{4} \times 4\frac{1}{4}$  Graflex equipped with a  $7\frac{1}{2}$  inch focal length anastigmat lens and magazine film holders, the other a Rolleiflex which she considers to have a general advantage in that it is less obtrusive and can be operated at closer quarters. The latter, of course, by virtue of the smallness



*Dorothea Lange*

of the film does not permit of as great a degree of enlargement. She also uses a Weston exposure meter to test the general light conditions once or twice during the expedition.

Miss Lange's work is motivated by no preconceived photographic aesthetic. Her attitude bears a significant analogy to the sensitized plate of the camera itself. For her, making a shot is an adventure that begins with no planned itinerary. She feels that setting out with a preconceived idea of what she wants to photograph actually minimizes her chance for success. Her method is to eradicate from her mind before she starts, all ideas which she might hold regarding the situation—her mind like an unexposed film.

In an old Ford she drives to a place most likely to yield subjects consistent with her general sympathies. Unlike the newspaper reporter, she has no news or editorial policies to direct her movements; it is only her deeply personal sympathies for the unfortunates, the downtrodden, the misfits, among her contemporaries that provide the impetus for her expedition. She may park her car at the waterfront during a strike, perhaps at a meeting of unemployed, by sleepers in the city square, at transient shelters,—breadlines, parades, or demonstrations. Here she waits with her camera open and unconcealed, her mind ready.

What is she seeking,—what is the essence of the human situation and through what elements or items does it reveal itself? The scene is a panorama, constantly shifting and rearranging. For her it is transformed into a pageant of humanity across the ground glass—the drama moves, the individuals stir and mill about, by what motivation she cares little. It may be hours before a climax arrives worthy of that decisive click of the shutter. Suddenly out of the chaos of disorganized movement, the ground glass becomes alive, not in the human sense alone, but in the sense that only a photographer can recognize—a scene, a negative, finally a print that is itself alive. And here is where the photographer becomes the creator, feeling all the thrills and all the responsibilities of the creative artist. A dozen questions of possible technical failure flash simultaneously thru the mind and resolve themselves into: "Has the touch upon the shutter release killed something that was palpitating and real a moment ago, or has it preserved it for others to share and enjoy?"

Perhaps the impulse that causes any photographer to open his shutter finally to the object before his lens, is the conviction that the demands of the basic photographic values which give life to a plate have been satisfied, whether the objects which he is photographing be living or inanimate. For Miss Lange, the final clicking of the shutter has the added thrill that she has recorded another climax in the turbulent drama of human relations. Her individual shots cannot tell the whole story, nor has she any plan of sequence—it is only in the broad scope of her life's work, the constant reiteration of the climaxes, that her commentary upon humanity is to be found.

There is no attempt made to conceal her apparatus. Miss Lange merely appears to take as little interest in the proceedings around her as is possible. She looks at no individual directly, and soon she becomes



*Dorothea Lange*

one of the familiar elements of her surroundings. Her subjects become unaware of her presence. Her method, as she describes it, is to act as if she possessed the power to become invisible to those around her. This mental attitude enables her to completely ignore those who might resent her presence.

Perhaps we can arrive at a better evaluation of her record in terms of a future observer than as contemporary critics. We ourselves are too poignantly involved in the turmoil of present life. Much of it is stupid, confused, violent, some little of it is significant, all of it is of the most immediate concern to everyone living today—we have no time for the records, ourselves living and dying in the recording.





*Dorothea Lange*

We can assume the role of that future critic by looking back to the work of Mathew Brady, who in the dawn of photography made a heroic record of another crisis in American life. Brady and Lange have both made significant use of their common medium—they differ mainly in terms of the technical advancement of the medium itself. Lange can photograph the split-seconds of the dynamic surges of the scene about her—Brady, carrying a complete darkroom about with him through the northern battlefields of the Civil War, sensitizing his own plates before each shot, making twenty minute exposures, had to wait for the ample lulls between engagements. The implications of his record are retrospective, the scene after the battle, the dead that were once living, the



*Dorothea Lange*

ruins that were once forts, faces still and relaxed. Both Lange and Brady share the passionate desire to show posterity the mixture of futility and hope, of heroism and stupidity, greatness and banality that are the concomitants of man's struggle forward.

Technical data:

The negatives are made on fast panchromatic film and developed in Metol-hydroquinone. The prints are enlargements on matte or semi-matte paper. There is no retouching on negatives or prints which are printed as sharply as the limitations of her way of working will permit. Most of the exposures are made at 100th of a second or faster.

# Outdoor Portraiture

P. Douglas Anderson, A. R. P. S.

THE writer has received numerous requests from readers of this magazine and students of the University of California Extension Division Classes in Photography for an article covering outdoor lighting in reference to portraiture similar to that demonstrated on field trips held in conjunction with the classes. A practical demonstration and one that depends on illustrations and a written explanation of the methods used to produce certain effects are somewhat different. However, we will do our best to comply with the requests and explain as clearly as possible just how the illustrations were produced.

In a previous article on Outdoor Portraiture, *Camera Craft*, October 1933, information was given on Natural Backgrounds, Reflectors, How to Make Them, Cameras and Lenses, Exposure, and these points will be omitted in this article except when necessary to clarify some particular point. The following is being penned with the sincere hope that it will be of value to those that practice Outdoor Portraiture, and those that intend taking up this interesting branch of photography.

The light angles illustrated are of value to those interested in the other branches of photography such as landscape and marine work, for too often the matter of lighting is neglected when portraying an outdoor scene. No thought is given as to whether or not the scene would be improved if it were photographed with the sun at a different angle. If this important point was studied it would not be necessary to indulge in so much after manipulation of the negative and the print in an effort to produce a result that very often could have been accomplished by selection of the proper light angle for making the exposure.

The writer firmly believes that a thorough understanding of portrait lightings is beneficial to those practicing the other branches of photography. When possessed with this knowledge the worker can visualize



Fig. 1

just how the particular subject he is photographing would look under a different lighting; in which direction the shadows would fall; and thus determine the best method of procedure to adopt.

As the illustration, Fig. 1, of the set-up used in producing the following prints shows, the writers backyard was the scene of activities. The background used was transferred from the studio and the screen on the left was placed between the sun's rays and the subject to diffuse the light and give softer contrasts.

The use of an artificial background is valuable insofar as it permits the selection of any light angle, or position of the subject to produce any desired effect. In addition, being of a plain and neutral color, it doesn't detract from the subject. Although natural backgrounds are very interesting and effective and at times help produce results that would be hard to duplicate by other methods, nevertheless they are sometimes obstreperous and refuse to be in the right place at the right time.

No reflectors were used though a number of the lightings reproduced could have been improved by their use in addition to the diffuser. However, the intention was to keep everything as simple as possible for comparison. This doesn't necessarily mean that reflectors should not be used—rather the reverse—they should be used whenever possible to improve and balance the lighting. As a further aid in simplification of the lightings used no attempt was made at dramatizing the subject by posing and changing the vertical camera angles to produce certain effects. All poses are as similar as possible, to enable the reader to make

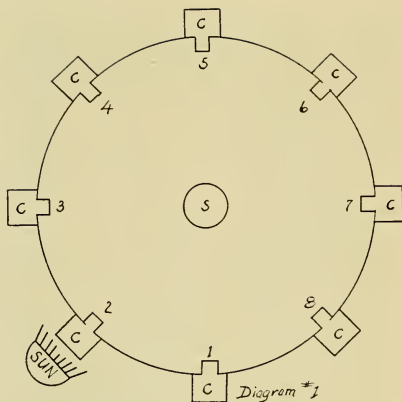


Fig. 2

c, indicates camera  
s, model, dif., diffuser  
R<sup>1</sup> and R<sup>2</sup>, reflectors.

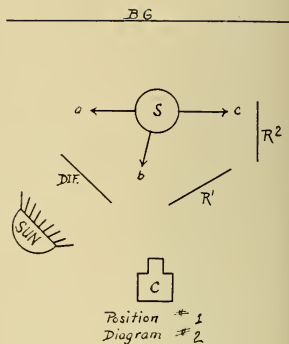


Fig. 3

Arrows indicate direction of models  
gaze, in the three poses photograph-  
ed from camera position Number 1

direct comparison of the results produced by the various light angles.

One other point that is worth our notice is the following:—The use of a screen or diffuser between the sun and the subject flattens the light and as a result the developing time of the film will have to be increased slightly over the normal if one uses one grade of paper for printing. Exposure is important and one should work on the minimum correct exposure band to produce the best results.

## Explanation of Diagrams

As the diagram, Fig. 2, illustrates the subject was placed in the center of an imaginary circle and the camera was moved to different positions on the outer circumference. These positions are numbered one to eight for reference. In making the studies the subject was turned to face the camera positions and the background was moved correspondingly in the rear of the subject.

In studying the diagram you will note that positions #1 and #3 are similar in that the sun is approximately at a 45° angle to the subject. The only difference is that in #1 the sun is camera left and in #3 camera right. Camera position #2 is flat lighting, the sun being directly behind the camera. In #6 position we have direct back lighting the exact opposite to that in #2 position. Positions #4 and #5 are similar to #8 and #7 excepting the sun is camera right and left respectively. They give partial backlighting effects and are particularly effective in producing a strong lighting. Sunshades or lens hoods are necessary when working at these angles. In fact they should be standard equip-





a

b

c

Position #1—Lens aperture F:20,  
other factors constant.

ment for photographic work in general. Although definite positions are marked on the diagram there is nothing to prevent one from working at points between them to produce a desired effect.

Before putting into practice the ideas expressed here and actually making negatives, it is advisable first of all to do some preliminary work. For example, have some obliging friend pose for you. Move to the various points shown in the diagram and have your friend turn slowly right and left as shown in Fig. 3, and study the various changes that take place in the lighting. Practice of this nature will familiarize you with the various light angles and will enable you to obtain any particular light angle you desire when making a portrait.

Considerable practice can be obtained in studying these light changes and angles by the use of an artificial lamp. Set the lamp in position and leave it there. Just imagine it is the sun. Then seat your subject and have him turn in the direction you wish, in the meantime you yourself move to the various positions shown in the chart and study the results.

While speaking about artificial light, a thought occurs to me regarding the amount of unnecessary moving of lights that takes place when making portraits with them. Some workers think it is absolutely necessary to move them for each and every pose. When the lights are balanced or placed to give correct modeling several poses can be made with them in that one position. Try it for yourself and see if this is not correct. Further proof of this statement is demonstrated in movie close-ups. The next time you visit a motion picture theatre study the close-ups shown on the screen and we feel sure that you will gain considerably from so doing.

## The Illustrations

A 4x5 R. B. Auto Graflex fitted with a 10" Carl Zeiss Tessar lens was used in making the illustrations. The exposures were made on E. K.



a

b

c

Position #2—Lens aperture F:22  
other factors constant.

Portrait Panchromatic film. Time of day between 10:00 and 11:00 A.M. The films were tank developed in D7 with the carbonate cut 25%. A K1 filter was used throughout. There was a slight breeze present at time of making the negatives and an exposure of 1/10 second was used. The lens diaphragm being altered to give correct exposure.

The illustration depicting the layout was made with a Zeiss Ideal A camera fitted with a  $4\frac{3}{4}$ " Tessar. The exposure was made on Agfa Plenachrome Film Pack. The diffuser shown at left mounted on a stand was made of 44 mesh cheese cloth stretched on a wire frame, size 3x4 feet. It was used approximately seven to eight feet from subject. If one has a permanent place in which to work the diffusing material could be stretched overhead using large window shade rollers for this purpose and we feel sure that this would be even more satisfactory than when used on a stand. A smaller screen will serve if portability is a factor. However, this is entirely up to the worker.

As some time was consumed in making the illustrations and "Old Sol" refused to stay put, a stake was placed in the ground and the shadow thrown by it marked and from time to time the position of the shadow was noted and the camera position altered accordingly.

In position #1 the sun is camera left at approximately a 45° angle. In the three poses shown the camera was left stationary and the subject turned left and right to show the various effects obtainable. Several other poses could have been presented but we believe that three views in this and the other positions are sufficient to show the lightings obtainable. Position #3 is not illustrated as it is similar to #1 except the sun is camera right instead of camera left.

In position #2 we have a demonstration of flat lighting, the sun being directly behind the camera and falling directly on the subject. This is a trying light angle out of doors for our subject even with a



a

b

c

Position #4—Lens aperture F:18  
other factors constant.

diffusing screen interposed between her and the sun. However, although it is not advantageous for this subject in full face it is an effective lighting in profile or partial profile and undoubtedly has a place in producing effects obtainable in no other way. The subject only, was turned right and left in these poses.

In position #4 we have a demonstration of some of the effects obtainable with side lighting and an unlimited variety of lightings and poses could be produced with it, as is also true of the other camera positions illustrated. As that is not our intention in this present discussion we limit ourselves to three poses turning the subject full face and right and left to the camera.

In position #5 we have another very effective light angle to which we are partial. The reader should also be aware of the fact that movement of the camera in a vertical direction, either above or below the level of the sitters head, will provide an additional means of varying the final result. In the illustrations produced the subject was turned to obtain the effects shown.

In position #6 we have a demonstration of back lighting. In the full face view the camera was in the position shown in the diagram, but in the profile and the other pose the camera was moved approximately three feet right and left of diagram position. If the subject as shown at right in this illustration had been turned right or camera left to give a profile we would have obtained an effect similar to the center pose in group #5, although the subject and light angle would be reversed.

In position #8 the first and second poses show effects obtained by turning subject. In the third pose the subject was turned to face more into the light and the camera moved to left of its diagram position. In the third pose in position #8 you will note that the background is con-



a

b

c

Position #5— Lens aperture F:16  
other factors constant.

siderably lighter in color than the other two poses. For this particular view the background was turned to face the sun and being brightly illuminated, it prints in a light value. In the other two poses it was turned slightly away from the sun and correspondingly gives a darker value.

In making the studies straight photographic technique was used throughout as the writer believes that only by this method could comparable results be obtained.

A soft reflector could have been used throughout all the studies to produce better modeling of the face. When using a reflector it is good practice to use it approximately on a level or slightly higher than the subject's face and not from a low angle. Place the reflector at an angle that blends the light from the high lights into the shadows and not vice-versa. Referring to the diagram, Fig. 3, the recommended position for the reflector with the model in the position marked 2 is shown at R1 and the wrong position at R2. Notice that the recommended position will blend the light from the highlights into the shadows, while the wrong position will illuminate the deep shadows but will not give a smooth transition from the highlights to the shadows. If you work from the shadow side into the highlight side you will generally produce a dark area where the highlights and shadows meet, and this dark area will give an apparent depression or hollow at that point.

One further advantage of the reflector and an additional reason why it should be placed as recommended is found in the fact that except in the early morning or late afternoon, the high angle of light makes it difficult to register a catch light in the eyes. A soft reflector placed as recommended will provide a catch light.

From this we derive another reason for placing the reflector well off the ground, for if placed too low the catch light will appear low in



a

b

c

Position #6—Lens aperture F:14  
other factors constant.

the eye and be in contradiction to the general illumination.

It is not expected that a worker will adopt and use all the light angles and positions demonstrated. Rather it is assumed that just a few of the angles will appeal to him and that he will practice them to the exclusion of the others. This will, undoubtedly, simplify things and he can make use of any accessory that will enable him to produce the best possible results.

In conclusion I wish to thank Miss Elizabeth Peters who posed for the studies and helped the writer in no small measure by her willingness to be photographed in any and all angles whether or not they were advantageous to her.



a

b

c

Position #8—Lens aperture F:18, for poses a and b, F:20 for c,  
other factors constant.



# Shooting Football

Nestor Barrett

**H**OW many times have you been in the football stadium and envied that select group on the greensward below—the ever present news photographers “If only I had their opportunities,” you’ve told yourself, “what masterpieces I’d get. What lucky fellows they are.”

Well, you’re partly right. The news photographer does get the breaks at the games. But everything doesn’t come his way by any means. You, the spectator, are in an ideal position to get many fine shots of the game if only you go at it in the right way. Take the West Point Army-Stanford game of a couple of seasons ago.

Eighty thousand eager, excited fans had assembled in the Stanford bowl. They were there for one thing—to see what would happen when Cagle, famed Army back, and Phil Moffat, of Stanford, met for the first time. After the game had progressed for some time, the long desired event happened. And it came about in the most dramatic manner. Army was in possession of the ball on its thirty yard line. The teams lined up. The ball was snapped to Cagle. Like a flash he was away around end. Eluding tacklers he was soon in the clear. Across the field was Moffat who had been drawn out of his position as safety man. He saw quickly that his only hope was to dash across the field and stake everything on a tackle made on about his own twenty yard line.

He was off like lightning. Going full speed he met his opponent just where he had figured, driving him toward the side lines. The impact was so great both men were knocked cold, but the day had been saved for Stanford.

Here, indeed, was the picture opportunity of the season. A good photo of these two famous players in such a bit of dynamic action would be a sure success. But, to my knowledge, not one photographer on the



*Nestor Barrett*

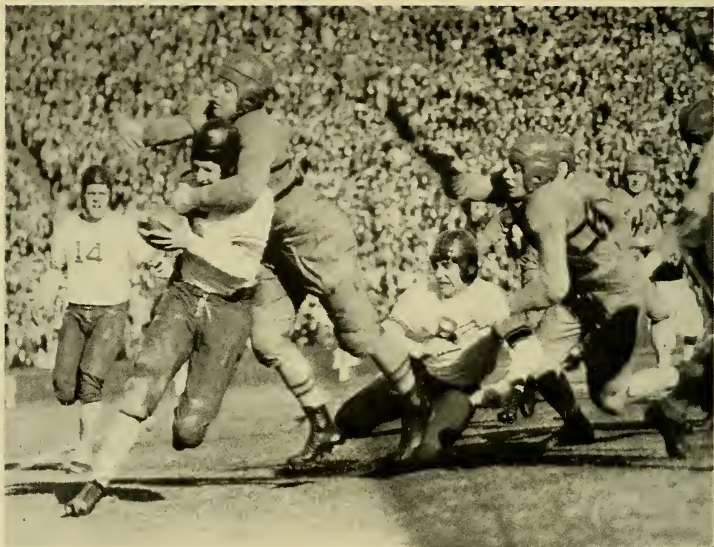
This is Ray Sparling, University of Southern California player getting started on the touchdown run which netted the only score in a recent game with the University of California. This photo is a good example of a line play shot as it shows very clearly the hole which has been opened by U.S.C. interference to let their man through.

field got the picture. They had all been left flatfooted on the other end of the gridiron by the unexpected suddenness of the play.

Not so unfortunate were the men in the stadium. With a slight movement they were able to direct their cameras to the proper corner and record the bit of priceless action. They had the spectator's advantage of not being too close to the scene.

Most newsmen working on the field use the Graflex camera and a telephoto lens, usually about a 12 or 14 inch. For my own use I have one of the largest, a 17 inch Dallmeyer. It is advantageous when the play is going on across the field as it gives a big image. But it has one obvious disadvantage. When the play is close to the camera it is useless as its field is too small.

Within the last year an important change has been taking place in football photography. Much clamoring from the fans has resulted in the picture makers being put on the top of the stadium. Here they must use extremely long focus lenses (20 inches or over) or resort to fine grain development and enlarge several diameters. In this change the fan



*Nestor Barrett*

This photo shows a thrilling moment in the Army-Stanford game. Fentrup is the man with the ball. He is being brought to earth by a West Point man who went over the top to make the tackle. This picture was featured in the New York Herald Tribune Sunday rotogravure section, being "spread" eight columns wide and more than a half page deep on the front of the section.

with the camera may rejoice, for he now has as much advantage in filming as the professional.

Likewise the miniature camera fan has a decided advantage over the user of the ordinary type of machine. First, he can sight his camera from eye level, an absolute necessity in the stadium, as the spectators have a tendency to stand up during every exciting play. Secondly, he may make many shots without reloading, assuring him of more opportunity to catch the thrilling moment when it comes.

Here are some pointers on shooting this great sport which may come in handy, and which I have found to be sound in actual use at nearly every important game played in California during the last few years.

Films: Use the fastest film available. Supersensitive Panchromatic or Wratten Hypersensitive plates. The extra speed is helpful in poor light and the color correction is valuable as the players usually wear brightly colored uniforms.

Shutter speeds: Most people are astounded when they learn how slow a shutter speed is satisfactory for this work. I have made many



*Nestor Barrett*

Here is an example of a picture without the ball in it. It is interesting only because of the grotesque positions the players have been caught in by their effort to block the kick.

pictures with a speed of  $1/190$ th of a second, taken at right angles to the line of the play which did not show motion too much.

**Stop opening:** The tendency of beginners is to shoot action pictures "wide open." Although my telephoto will work at  $f:5.6$ , I rarely use this large an opening. On a bright day it is safe to work at  $f:11$ . You will find that pictures made with the small openings will be much more satisfactory, as the depth of focus thus secured is more satisfying.

**Developer:** Any of the good standard developers will do for this work, although I prefer for personal use the more contrasty ones. The confusing nature of the backgrounds encountered make it necessary to use every device to throw the image of the players into sharp relief.

**Notes:** Keep some kind of notes with your photos. The crudest kind will do if you understand them. Nothing is so exasperating as to have secured a shot of some brilliant play, only to be unable to identify the man who is making it.

**Enlarging:** It is very rarely that the whole negative should be enlarged. Use only that portion which shows the actual action involved. Most of the football pictures have too many players in them. I recall an amusing incident which illustrates this.

I was representing an Eastern photo syndicate, and was unable to attend a certain game in which they were interested. I arranged with



a local newspaper photographer to see his negatives as soon as developed, and to buy such prints as I wanted. Two were selected and prints made according to my instructions. On my way out I had to pass through the sports department of the paper where I encountered the editor. He noticed the prints and asked to see them. After inspecting them he said:

"You've got nice stuff there, Barrett. Why in the world can't our man get shots like those."

Not wanting to get a friend in a jam, I did not tell him he had the identical views I had, on his desk, except that he had prints from the whole negative while I had selected the section where the important action was taking place, leaving the rest out.

A football negative is usually worthless if you cannot see the ball. If the light is poor, and it is impossible to use a shutter speed fast enough to stop action, good pictures can be obtained by the trick of waiting until the action stops, and shooting at that instant. Always take into consideration the time lag in focal plane shutters, and trip them just an instant before the peak of the action is reached.

Make a study of the game and anticipate what will happen next. The most thrilling scenes often come from forward pass plays, which are hard to follow, but will repay effort to get them. Fumbles, showing the ball in the air, make interesting views, as do good pictures showing interference sweeping ahead of the runner.

Remember always that the good news photographer does not let his heart run away with his head. He must forget his prejudices and concentrate on the business at hand. He may miss some of the moments throat catching thrill, but his reward is very great. After the game the ordinary fan leaves the stadium, limp, hoarse and worn out, with only vague memories of the highlights. But your camera fan, returning home, finds the fun has just begun. Before him are the fascinating hours when he will develop and print his handiwork, finding each one more thrilling than the last, the whole a priceless record which will refresh the memory and quicken the pulse beat for years to come.

#### TECHNICAL DATA:

All photos made on Eastman S.S. Pan. Developed in Elon-Hydroquinone. Enlarged on News Bromide contrast. Made with a Graflex on  $3\frac{1}{4}$  by  $4\frac{1}{4}$  film. Dallmeyer telephoto 17 inch.



# Composition For The Beginner

Thomas A. Wilson, M. S.

## Part III

It is the expression of rhythm in pictures that causes them to appear alive—that causes a feeling of movement, and that causes the eye to follow easily from one of the elements of a picture to each of the other elements. Stiechen can place a subject's elbow against a background in such a way that the picture fairly vibrates with activity, Muray can put life into a picture with a fold of cloth, Fraprie can make a landscape in which the wind seems to be rustling through the leaves of the trees, and Sheeler can make a picture of an industrial plant in which one can almost see the cog wheels turning. Some photographers can do these things better than others because they have a greater mastery of the principles of composition that cause a feeling of rhythm in pictures.

Methods of adding rhythm in pictures are numerous and often so subtle that it is difficult to discover just how the feeling of movement was caused. However, there are a few basic principles of composition upon which most rhythm in pictures is based. These are of the nature of psychological illusions, for the camera cannot record movement, and movement and rhythm in pictures is caused by the imagination of the person observing the picture.

Repetition, or sequence, of similar lines, tones, forms, or masses will cause a feeling of rhythm and movement. For instance, a row of trees or telegraph poles of various sizes leading into the picture will often cause this effect. The waves of the ocean furnish a good illustration of rhythm, as do also some kinds of cloud formations. Mountains and hills, the curves of a river, and even the markings seen in leaves are replete with variations and repetitions of a single design. The use of alternate patches of light and shade, in fact, a repetition of almost any design or idea, causes a feeling of rhythm. Rhymes and accents in poetry and music follow a similar principle. The artist, musician, or poet may readily plan his art so that it will contain rhythm; in photography, however, the securing of rhythmical effects is more difficult than in any other

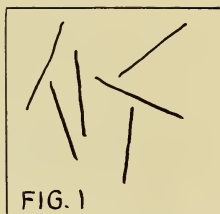


FIG. 1

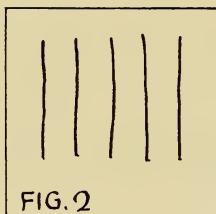


FIG. 2

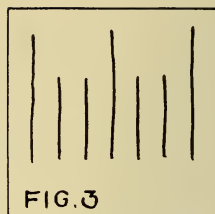


FIG. 3

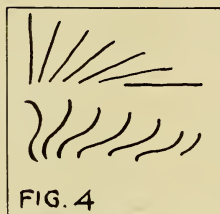


FIG. 4

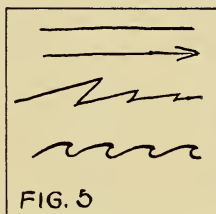


FIG. 5

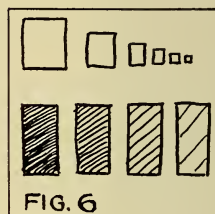
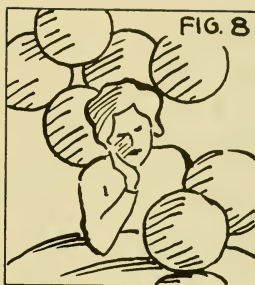
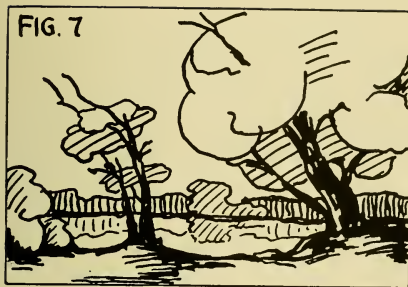


FIG. 6

form of art. The photographer cannot change the shape of a mountain or a cloud if it does not happen to fit the general design of his picture; he can, however, use only those parts of such things for which he has a definite use. The accompanying sketches will give an idea as to the use of lines of interest, tones, shapes, and masses for creating this feeling of motion, or rhythm, in photographs.

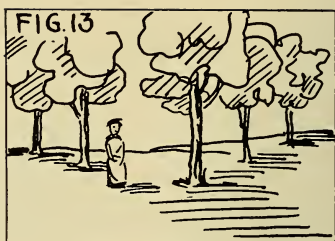
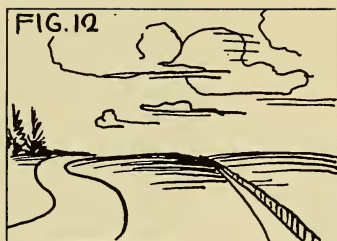
The lines in Fig. 1 are similar in shape and length, but they cause no feeling of rhythm because they are arranged in no systematic order whatsoever. In Fig. 2, the lines are orderly, but each being exactly alike, the rhythm is monotonous. The lines in Fig. 3 are more pleasing, and seem to have some kind of meaning. Fig. 4, illustrates how a sequence of similar lines may be made to cause a feeling of rhythmical motion, leading the eye in a definite direction. The straight line in Fig. 5 expresses nothing, but an arrowhead on it draws the eye and suggests swift movement. The diminishing series of angles expresses speed, and it will be recalled that lightning is often pictured in this manner. The series of curves in this figure causes a feeling of monotonous, unceasing motion, and is often used to suggest ocean waves in formal decorations. Fig. 6 shows that a receding sequence of similar shapes and a sequence of tone values cause a feeling of rhythm quite as much as does a sequence of lines. These principles should be kept in mind when composing a picture, and the lines, shapes, and tones should be repeated throughout the picture in such a way that the eye is drawn from one point of interest to another without being distracted by the intrusion of too many conflicting lines, shapes, or tones.

The landscape in Fig. 7 is rhythmical through a repetition of similar lines and shapes, there being a harmonious repetition of nearly all of



the forms shown. A novel repetition of circles and curved lines was used by Beaton in a recent theatrical portrait—Fig. 8 illustrates this, the line of the shoulders being repeated in the line of the table and the shape of the head being repeated in a number of toy balloons. In portraiture, the folds of the subject's clothing may be emphasized in such a way as to give a pronounced feeling of rhythm. Fig. 9 shows a frequent use of this principle in portraits of a bride in her wedding gown. A pleasing sequence of tone values and shapes is shown in Fig. 10, and although there is no sign of life in this sketch, there is a very real feeling of rhythm. Fig. 11 illustrates rhythm caused by a repetition of similar curved lines. As stated previously, there are many ways of creating a feeling of rhythm in pictures, and these sketches show only a few of the reasons why some pictures appear lifelike while others appear dead and uninteresting.

It may be observed that just as a written paragraph must have a beginning, a middle, and an end so must any kind of a picture come to the attention of the eye, express its meaning, however trivial, and then free the eye to wander elsewhere. The eye should be led through the picture, item by item, until everything has been seen, and then permitted to pass out of the picture by a regular exit. It is not well to

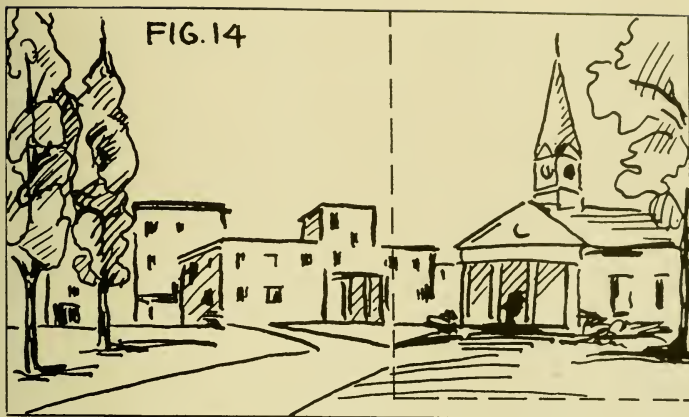


have two separate lines of interest leading the eye into different parts of the picture, for this would destroy the unity, or oneness, of the picture (Fig. 12). Neither is it well to have two exits for the eye to leave the picture, for that would be confusing (Fig. 13). If no regular exit is provided, the eye must retreat and pass out by the way it entered, and this is like reading a paragraph forward and then backward. When lines of interest are used to tie the different parts of a picture together unity is benefitted by the use of a regular entrance and exit.

Beginners often try to make their pictures too inclusive. This is especially true of photographers of landscapes, and it is not unusual to see one in which the photographer has assembled a little of everything—trees, a river, a boat, a sunset, clouds, birds, human beings, animals, and mountains—all in a single picture. But this is usually a mistake, for too many different ideas are involved. It is better to limit the picture to the expression of a single, or a very few, ideas.

When a picture contains both a landscape and a figure, emphasis should be placed either upon the figure or the scene. If the picture is intended for a portrait, the landscape should be handled in such a way that it will be less interesting than the person. If the landscape is to be the most important, the figure should be so placed and so lighted that it will not dominate the entire scene. In portraits, this principle also applies to the selection or arrangement of backgrounds, clothing, and other unimportant details, for it is easy to weaken the effect of the picture by emphasis upon too attractive surroundings.

Care must be taken, also, that the picture does not consist of two or more complete compositions. Too often does a photograph consist of not one picture but several. The best way of avoiding this is to keep the picture simple—just as simple as possible to express the principal object of interest. It is well to examine each photograph carefully in order to discover any pleasing and complete compositions which might be contained within the whole picture. Fig. 14, for example, contains two separate scenes, either part of which would be better alone. Such defects can often be remedied by merely trimming the print, but it



is often necessary to mask the negative and enlarge a small portion to the desired size.

It is unity that makes the different elements in a picture seem to fit together. Whistler's famous portrait of his mother, for instance, contains several different objects but they are all bound together in such a way that it seems nothing could have been omitted. A really poor composition seldom hangs on the walls of any art gallery, and the photographer can obtain many good ideas for future use by studying good examples of painting. Good photographs, of course, should be studied also, and whenever looking at such pictures, the photographer should pay attention to the handling of tone values, the direction of lines, and the method of attaining balance, as well as the methods used in obtaining rhythm and unity. By such systematic study, the photographer will not only learn to make better pictures, but will also come to a better understanding and appreciation of what is really good or poor in other forms of artistic expression.

For those who wish to read further upon this subject, the writer wishes to acknowledge the following references which have been helpful in preparing this series of articles, and from which the ideas for some of the sketches and diagrams used have been obtained: Pearce, COMPOSITION, 1927; H. W. Harrison, THE THEORY OF PICTORIAL ART, 1931; Neuhaus, THE APPRECIATION OF ART, 1924; H. R. Poore, PICTORIAL COMPOSITION, 1903; Hammond, PICTORIAL COMPOSITION IN PHOTOGRAPHY, 1932; Bailey, PHOTOGRAPHY AND FINE ART, 1918; Jacobs, THE ART OF COMPOSITION, 1926.



# Our Monthly Competition

## Scoring for Club Trophy Cups

The following won points for their clubs in the Advanced Class: Karl A. Baumgaertel, for the California Camera Club; Dr. Max Thorek, for the Fort Dearborn Camera Club; Beauford B. Fisher, for the Monterey Peninsula Camera Club; John Muller's points cannot be credited to the Pictorial Photographers of America, as he has previously won the maximum of 15 points allowed an individual. The following won points for their clubs in the Amateur Class. Johanna E. Heim and Don Kirby Oliver, for the California Camera Club; Wilson D. Ellis, for the Photographic Society of San Francisco; and Lloyd J. Cartwright, for the Saginaw Camera Club.

### Contributing Clubs

California Camera Club	Norfolk Photographic Club
Cleveland Y.M.C.A. Camera Club	Photo Pictorialists of Milwaukee
Fort Dearborn Camera Club	Photographic Society of San Francisco
Golden Gate Leica Club	Pictorial Photographers of America
Hartford County Camera Club	Saginaw Camera Club
Japanese Camera Club	San Jose Camera Club
Miniature Camera Club of Philadelphia	Schenectady Photographic Society
Monterey Peninsula Camera Club	Sherwood Camera Club
Minneapolis Camera Club	Telephone Camera Club of Manhattan

### Standing of Clubs

#### Large Clubs Advanced Class

Camera Club of Ottawa	20
Fort Dearborn Camera Club	19
Pictorial Photographers of America	15
Photographic Soc. of San Francisco	13
California Camera Club	10
Los Angeles Camera Club	7
Telephone C. C. of Manhattan	4
Utica Camera Club	1

#### Small Clubs Advanced Class

Japanese Camera Club	16
Monterey Peninsula Camera Club	3

#### Large Club Amateur Class

Photographic Soc. of San Francisco	41
Schenectady Photographic Society	20
California Camera Club	18
Golden Gate Leica Club	10
Camera Club of Ottawa	4

#### Small Clubs Amateur Class

Cleveland Y.M.C.A. Camera Club	6
Saginaw Camera Club	4
San Jose Camera Club	2

## ADVANCED COMPETITION

October 1934

### List of Contributors

Edward Alenius, Jamaica, L.I., N.Y.	V. E. Johnson, Chicago, Ill.
Jack Arnold, East London, So. Africa	Roy X. Jones, Boston, Mass.
Helen Louise Barham, Nashville, Tenn.	Fred G. Korth, Chicago, Ill.
*Karl A. Baumgaertel, San Francisco, Calif.	J. L. Laning, New York, N.Y.
Lawrence Berman, St. Paul, Minn.	*John Muller, New York, N.Y.
Fred E. Crum, Spring Valley, N.Y.	*Russell T. Neville, Kewanee, Ill.
Evelyn Curtis, Oakland, Calif.	Charles T. Norton, Scotia, N.Y.
Harold L. Denis, New York, N.Y.	L. S. Olson, Brooklyn, N.Y.
John Emerson, Chicago, Ill.	George Michael Rex, Pasadena, Calif.
*Beauford B. Fisher, Pacific Grove, Calif.	*Dr. Max Thorek, Chicago, Ill.
N. A. Garman, Philadelphia Pa.	*Denotes prize winners.

Amateur Contributors on Page 496

## Discussion

■ We are particularly pleased with the fine clean cut photographic quality of Mr. Muller's "In From The Banks". Since much of the controversy between the "old" and "new" schools of photography rages around the degree of definition that is desirable, it is interesting to look at this picture with that thought in mind. The picture was photographed sharp, and a very slight degree of diffusion introduced by printing through black silk. The diffusion has only eliminated the "bite", and "brittleness" of extreme sharpness, and the result closely approaches what the eye would see. The



*"In from the Banks"*

John Muller

First Award—Advanced Class

"purist", however, will point out that Mr. Muller has approached his subject matter subjectively, with the intention of bringing out the emotional qualities of the scene—the peace, quiet, rest, and security—that one associates with the thought of a harbor. The "purist" would not concern himself with these emotional values, but would approach the scene objectively, intellectually, and in such case the technical requirement of absolute sharpness would be valid. All of which is true if one accepts the ideology upon which it is based, and brings us to the point we wish to make. The approach to subject matter and the technique, must be in harmony. Many an amateur, because of an incomplete understanding of the principles of the two schools, is trying to portray what he sees subjectively with an objective technique, and vice versa. There are subjects which require an objective approach and technique, the pictures of Wilson D. Ellis and Johanna E. Heim in this month's amateur class may serve as examples, and there are also those which do not. Until the photographer knows what he is trying to do he can hardly hope for success. Mr. Muller does know and we believe he is right in resorting to a limited amount of diffusion in the present instance.

The eye enters the picture easily and naturally along the line of boats at the left, is carried firmly to the right by the bright line of the third boat, and moves readily about the large boats which constitute the principal interest. The piles in the lower right provide a necessary balancing mass. The only item that does not fit splendidly into the composition is the figure. It is not strong enough to constitute a center of interest, and it is not looking in a direction that conforms with the main lines of the picture. Since it is not readily seen it does not become a major distraction, but simply a small detail that the print could do without.

Data: 4x5" Graflex; 7" Zeiss lens; 1/10th sec. at F:22, on Defender X.F. Pan., in M.Q. tank, with K2 filter; Defender Velour Black J. diffused through black silk.



"Mountain Lullaby"

Karl A. Baumgaertel

imaginatively following around the curve of the road. Admitting that we are being hyper-critical we do feel that the area above the highest diagonal line of light is a shade too large in relation to the rest of the picture space. However, it seems evident that Mr. Baumgaertel has already done all that is possible to reduce this area, and further trimming does not seem advisable as it would introduce two difficulties. First, the highest of the diagonal lines of light would then run out at the upper right corner of the print causing the difficulty already mentioned above, and second such trimming would result in rather awkward print proportions unless trimming was also resorted to on the right, which again is not to be recommended.

Data:  $2\frac{1}{4} \times 3\frac{1}{4}$ " Ensign Roll Film Reflex; 9" Equiv. focus Dal'meyer Telephoto;  $1/25$  sec. at F:6.5 on E.K. S.S. Pan., roll film in Pyro-Metol; Defender Veltura in Amidol.

### Third Award—Advanced Class

■ Once again Mr. Fisher demonstrates his complete mastery of the paper negative process. Notice how nicely the delicate gradations and textures have been maintained. (Incidentally Mr. Fisher's article on the Paper Negative Process will appear next month. We consider it an exceptionally valuable contribution.) We suspect that a number of readers will wonder why this print was not given the first award. Admittedly any of the first three prints might have received that place for they are all fine things. In the case of this print the judges agreed as to its fine spacing, splendid modeling, and strong subject matter. Their sole criticism concerned the highlights on the background on each side of the hat, above the brim. These because of their juxtaposition with the deepest tones in the print are a trifle distracting. There is one other point which we would like to make, which is hardly a legitimate criticism for the print is right as it stands, and this point is largely a matter of personal preference. We might trim from the top and the left side just enough so that the edges of the print would cut the top and the left brim of the hat respectively. By so doing we diminish the strength of the hat slightly, eliminate the small spaces between the hat and two edges of the print, and as a result give increased dominance to the face. Try it and see if you like the result.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$ " R.B. Auto-Graflex;  $7\frac{1}{2}$ - $8\frac{1}{2}$ " Graf Variable; .113 sec. (calibrated shutter) at F:6.3 (sharp), on Defender X F Pan., tanked in Glycin; daylight in studio; positive on Agfa Printon, in D-76 for  $2\frac{1}{2}$  min.; paper negative on Defender Veltex; final print on E.K. Proofing paper, in M.Q.



"Forty-Niner"

Beauford B. Fisher

### Second Award—Advanced Class

■ We hear much of the value of simplicity in composition, and here is a picture which affords a fine example of that fact. The whole thing is put together with just a few lines and masses and yet it has a lovely rhythmic swing and the power to produce an unusually strong emotional reaction. Notice that the artist has appreciated the importance of checking the two diagonal lines of light before they reach the right of the print. If this were not done there would be a tendency for the eye to shoot out at the upper right instead of

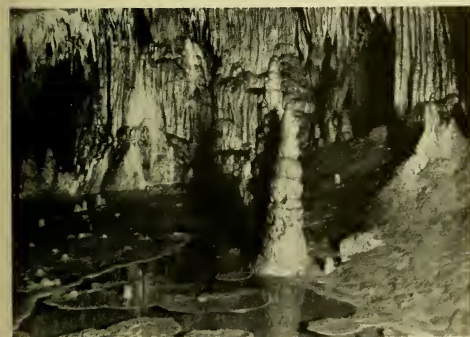
**Fourth Award  
Advanced Class**

■ Dr. Thorek presents an extremely poignant conception of Man, that one cannot help but feel is singularly appropriate to these restless times, and in so doing displays his talents for strong, dramatic expression. Some will feel that the picture seems rather crowded to the left in the picture space. We believe that this impression is gained not from any flaw in composition but because one cannot readily see that the eyes are looking to the figure's left. If the eyes were not in such deep shadow this fact would be more evident and the composition would seem in better balance. A slightly more definite turn of the head toward the right side of the print might also help in this respect. We should not overlook the fact that the present placing has the distinct advantage of simplifying the composition by eliminating the right arm, and thus concentrating interest.

Data: 8x10" Studio camera; 18" Verito; ½ sec. at F:8, on Agfa Plenachrome, in Glycin, by Halldorson studio light; paper negative; final print on E.K. Opal G in M.Q.



**"Homo Sapiens"**  
Dr. Max Thorek, F.R.P.S.



**Fifth Award  
Advanced Class**

**"Lily Pads"**  
Russell T. Neville

the erie unworlly nature of its subject matter. We believe it would help to trim away about one quarter of the distance from the right of the print into the two pillars. This would reduce the size of the rather monotonous area in the lower right, place the center of interest in a slightly stronger position, and improve the proportions of the print as a whole.

Data: Taken in Onondaga Cave, Leasburg, Mo. 5x7" camera; Cooke F:5.6 lens; exposure by Victor soft grade flash powder, on Gevaert Express Superchrom; Gevaert Novobrom print.





*"Oldtimer"*

*A. G. Millotte*

**First Award—Amateur Class**

■ "Oldtimer" is an excellent portrait, exceptionally well placed in the picture space, nicely lighted, and splendidly printed. The face is strong and interesting and the pose is natural, but we believe that this subject more or less demands sharper definition for such treatment is more in keeping with the strength of the face and can take fuller pictorial advantage of the deep cut lines it contains. The disadvantages of the present treatment are especially evident in the feeble drawing of the left side of the mouth.

We are under the impression that amateurs are occasionally puzzled by such expressions as "flow of line" or "rhythmic swing", especially when these terms are applied to portraits where the structural lines are not as evident as in other types of pictures. This print contains the element to which the above terms refer to no small degree and perhaps will help to elucidate the point. In this case a "flow of line", or "rhythmic swing" is set up by the line of the coat lapel which leads diagonally upward from the lower right corner and then moves with a circular motion around the outline of the face, spiraling in toward the eyes. The line of the hat, of course, is important in assisting this movement, and the shoulder line also helps by providing an impetuous toward the right at about the point where the circular motion begins.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$ " Speed Graphic; 1/10 sec. at F:4.5, on E.K. S.S. Pan., in A.B.C. Pyro; Opal Z, in D-72; 2000 W. Mazda.



**Second Award  
Amateur Class**

■ Mr. Cartwright has clicked his shutter on this absorbing little bit of Americana at just the right moment—when tension is at its highest, and spectators and contestants alike are holding their breaths in anticipation of the next shot. The circular composition holds together very nicely but one could wish that one of the figures could be given a bit more dominance in order to obtain a well established center of interest. As things stand honors are about equally divided between the shooter and the tragic young gentleman with his hand to his head, who appears rather worried about losing one of his prized possessions. Shots such as this are practically impossible to pose so we are forced to take them as they come, but ideally we would like to re-arrange this scene something like this. Move the figure at the extreme upper left down a little; move the boy with the book a bit to the left, and the tragedian to the right so he would be standing on the shadow of the figure in the upper right. In that position the figure with his hand to his head is well placed to become our center of interest, and by keeping his shirt high in key he should fill the bill very nicely. The shooter is too far to the right to function well as the principal figure, and anyway it seems that we can tell a more interesting story by concentrating attention on the rather woebegone aspect of the other fellow. A black border would help considerably.



**"Threesers"**

**Lloyd J. Cartwright**

Data:  $6\frac{1}{2} \times 9$  cm. Voigtlander Avus;  $4\frac{1}{8}$ " Skopar;  $1/25$  sec. at F:11, on E.K. Verichrome roll film, in D-76; Defender Velour Black DL, in D-72; corners darkened by "dodging in" and with lamblack.



**"Tug Boat"**

**Wilson D. Ellis**

On the other hand we find a bright spot at the left edge of the print, by the hawse-hole that is not necessary to the composition, and becomes a distraction due to its proximity to the edge of the picture. The leading exponents of "pure" photography practice the utmost simplicity in mounting, and we believe that most of them would repudiate the use of a black border about a print. Nevertheless a black border would be distinctly useful in confining this extremely energetic composition within the bounds of the picture space.

Data:  $9 \times 12$  cm. Voigtlander Avus;  $1/100$  sec. (aperture not given); E.K. S.S. Pan., in D-76; E.K. P.M.C. normal in D-72.

**Third Award  
Amateur Class**

■ Mr. Ellis gives us an interesting composition, very much in the spirit of the "pure" school. As a general proposition it is a mistake to have spots at the edges or corners of prints but by way of proving the rule we find an exception in this case. The objects in the upper left corner are quite necessary to the composition for they serve to check the strong direction force of the three lines which converge at that point, and thus prevent the eye from rushing out of the print. As it stands this check is barely strong enough to perform its function.

**Fourth Award  
Amateur Class**



**"Barbara"**  
**Don Kirby Oliver**

■ One feels that Don Kirby Oliver has been quick to sense the pictorial possibilities of this child's lovely big eyes, and has successfully emphasized them to the best advantage. On looking at the picture the eyes are so strong that one is hardly able to see any other part of the print.

One could wish that the maker had not allowed quite as much grain to creep in via the paper negative process, for with proper technique the grain can be kept quite subdued as is evidenced by Mr. Beauford B. Fisher's success in that respect. Of course grain is more easily seen in a high key print of this type.

Data: Eastman 5x7" view; 9" Wollensak; one small photoflash at F:16, on 3¼x4¼" E.K. S.S. Pan., in Glycin; paper negative on Defender Velour Black N, final print on same paper, in D-73.

**Fifth Award  
Amateur Class**

■ Once again we find an example of "pure" photography, and as in the previous instance, notice the technical excellence of the work. The acorn at the left is too close to the edge of the print to act as a good center of interest. We could either have eliminated this acorn before making the shot or moved the two of them a little further into the picture space. Now that the picture is made the only solution is to add a bit of space at the left of the print if this is possible, and if it then appears necessary to take a bit off the right to maintain pleasing print proportions we can see no objection to doing so.

Data: 3¼x4¼" R.B. Auto Graflex; Bausch and Lomb Tessar; 4 sec. at F:32, with K 2 filter, by 2, 500W Mazda lamps; Portrait Pan., in D-76; Defender Velour Black S in D-72.



**"Little Acorns"**  
**Johanna E. Heim**

# Cinema Section

Edited by

William A. Palmer

## Aids For Continuity

The term continuity as applied to motion pictures has a slightly different meaning from that expressed by the dictionary definition. When it is said that a motion picture should have good continuity, it is not meant that each scene must follow the preceding one, forming an absolute chronology of a written scenario, but that there should be a continuity of interest throughout the picture. This continuity of interest is just as necessary to the simplest of home movies of the children as it is to the super dramatic productions of Hollywood. It is the thread which ties the whole together.

Continuity, of course, has many forms. Some are more particularly applicable to photoplay form, others to typical home movies. All are worth studying for all can be called upon to help settle the problem of what to set before the camera. Let us review the more important forms.

Chronology, the typical story form or review of past events taken in their logical order of happening; Narration, the more flexible story form, in which the scenes do not necessarily have to be in the order of happening, but may have numerous cut-backs; and the theme type which is really an essay in film, built around some motif are all forms which are very useful in motion picture technique.

The Chronological and the Narrative forms and the variation of the narrative form which has recently been mentioned in professional picture advertising, "Narratage" (Combination of the words nar-

ration and montage), are most useful for the dramatic or photoplay type of film. The theme type on the other hand is very useful for the typical home movie. The theme type has been discussed on previous occasions in these pages.

But what of the typical amateur movie film made up of snap shots taken here and there: Bobby out playing on the back lawn, or the pictorial record of the last family picnic? We are told that continuity is important even in this type of film. Obviously, no hard and fast rules can be given for this snap shot type of film, but certain principles can be suggested whereby the continuity can be improved. Some of these aids for better continuity should be considered while the scenes are being photographed, others while the film is given its finishing touches on the editing table.

The aids to be considered while the pictures are being taken are: 1. The order of scenes. 2. The tempo or consistency of action in the various scenes of any one picture. 3. The mood or atmosphere of the scenes as exemplified in the lighting and the camera angles.

To elaborate further on these aids: First, the order of scenes. Usually this does not need to receive much attention at the time the pictures are taken, for one always expects to do the re-arranging of scenes in the editing process after the film has been returned from the processing station. However, if a certain amount of thought is given to this phase, the job of editing is made much easier and one is more apt to be sure

that he will have the full number of scenes necessary for a good continuity. It is most distressing to come to the editing of a picture and find that certain important scenes which would hold the thread of interest are absent because one didn't think to take them.

Consistency of tempo is important because one can readily see that if one scene has a fast tempo and is immediately followed by one in which the action is very slow, there will be an undesirable incongruity. Watch, then, while photographing to see that the tempo of the scenes which are to follow each other are either consistent in tempo or that the movement is such that they may be arranged in an order of increasing or decreasing tempo according to the effect desired.

The arrangement of the lighting and the camera angles can also be of invaluable aid to continuity. For instance, if the picture has exciting or dramatic action, unusual lighting and weird camera angles can improve the effect considerably. Likewise, if the picture is a tender love scene one would have simple, flattering lighting and normal unspectacular camera angles.

After all the camera work is finished and the editing job begins, we look to the final touches which aid continuity. Here again the order of scenes is all important. Just because the scenes were photographed in a certain order, there is no reason to leave them that way if the thread of interest is stronger by a rearrangement. Many are loath to introduce too many splices in a film and therefore let many bad spots remain uncut. This is poor practice and one should never hesitate to put in another splice if the picture is improved in the least. Carefully made splices are not nearly as objectionable to the projector as bad continuity is to the audience.

In the editing process, there is one point that is very important to observe, and that is the matter of eliminating "dead ends". Practically all scenes as they come from the camera have a few frames at the beginning and at the end,

where the camera was being started and just before the camera was turned off, that are unessential to the action. These frames, the "dead ends" should be cut out when the editing is done, even though it may mean a splice at the beginning and at the end of every scene.

Besides eliminating the unessentials at the beginning and end of scenes it is important to know how to patch two scenes together when the action is supposed to be continuous. For example, suppose there are two scenes in which a character simply walks out of one and then into the next. One would naturally suppose that the first scene should be cut just after the character has gone out of camera range and the second scene started just before the entrance into the camera field. Such cutting will give an awkward pause during the small amount of time in which the character is not in view. It is better if the last of the first scene is cut just about two frames before the exit is complete and then the next scene is spliced in about two frames after the entrance has begun. In this way the person never leaves the screen entirely. If the tempo of the movement is fast, the exit and entrance can be cut back further yet, perhaps four or five frames back from the point at which the subject goes out of the camera field. With this sort of cutting, the motion on the screen seems to have a continuous flow.

In all editing procedure, such as in cutting a close-up into a long shot, it's a good idea to look for certain duplicate motions in the close-up and long shot which when patched together will give a continuous flow of action.

It is hoped that the above discussion will in a measure clarify some of the mechanics of continuity. The problem of the strict order of scenes of any one particular subject must remain an individual problem. But the matter of selecting the proper sequence of scenes can be made easier if one remembers that any picture should tell a story and the proper sequence of scenes is really that order which most easily, most naturally tells that story.

# More On Fades

The best way to make a fade-out has always been a problem. The nicest way to make a fade, of course, is by the use of a dissolving shutter such as that found on the Cine Special but we all don't have dissolving shutters. A certain measure of success has been obtained by certain workers by using the stop diaphragm of the lens. This latter method, however, has the objection that the scene often fails to go completely "out".

A very successful method of making fades is by the use of the optical wedge or "fading glass". This is merely a piece of glass or film which is graduated by a neutral tint deposit from perfectly clear transparency at one end to complete opacity at the other. It may be in a circular form or in a straight strip which can be moved gradually across the front of the lens, gradually increasing or de-

creasing the amount of light which reaches the lens.

It is comparatively a simple matter to make such an optical wedge of the strip form by the use of 35mm positive cine film. The wedge is made by fogging a small piece of film by means of a flash-light bulb, placed in a position as shown in figure 1, and then developing the film in an ordinary developer. The film is laid out, emulsion up, on a flat surface and the bare flashlight bulb is placed at one end of the film and about a quarter inch above the surface. The bulb is connected to batteries so that it may be given a short flash to expose the film. About a half second exposure is usually sufficient. The film can then be developed, a little under the normal time so as to keep the unexposed end of the film quite clear. When the film is fixed,

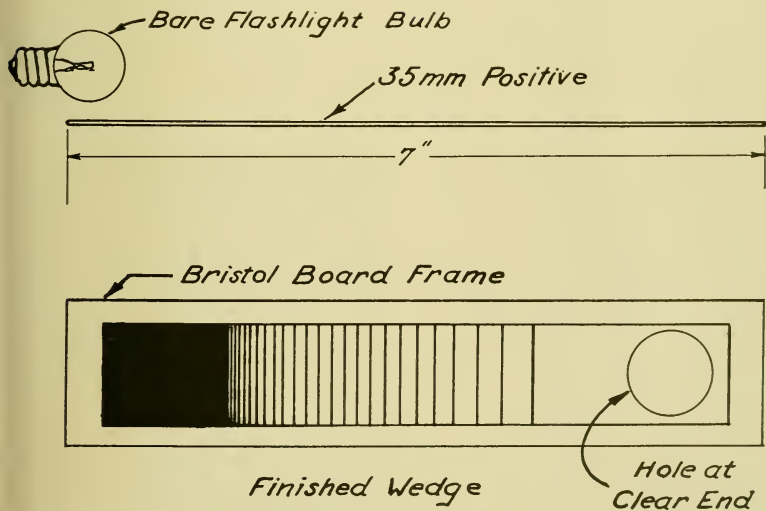


FIGURE 1



washed, and dried, the wedge is complete.

The wedge is mounted for convenience in a frame of Bristol board or smooth cardboard. At the clear end of the wedge, a hole is cut in the celluloid slightly larger than the diameter of the sun shade of the lens over which the wedge is to be used.

When the wedge is used to make a fade-in, the opaque portion is held over the front of the lens and the camera is started. It is then moved slowly over the lens until the clear portion with the hole is reached, and then merely hung over the lens shade during the shooting of the scene. If a fadeout is desired, the wedge which is already hanging on the lens shade is lifted off and carefully moved in front of the lens until the opaque portion is reached. As soon as the lens is completely covered, the camera is shut off. With a little practice it will be found that a fade-in or fade-out can be made with this little device with as much success as when the dissolving shutter is used.

## Questions

**Question:** Is it possible to use an ordinary camera lens of three or four inch focal length as a telephoto on a 16mm movie camera?

**Answer:** Yes. If such a lens is mounted in a special tube at the proper distance from the film, it will serve very well. Care should be taken to line the tube with velvet to eliminate internal reflections.

**Question:** I have heard that a two inch telephoto lens is better for close-ups than the regular one inch lens. Why is this?

**Answer:** When the two inch lens is used for a closeup, the camera naturally has to be further from the subject. This results in a better perspective and more flattering rendering of facial features, for when the camera is too close to the subject, the nose appears exaggerated in size.

## AMATEUR COMPETITION

October 1934

### List of Contributors

Milton H. Abram, Milwaukee, Wis.  
Harold L. Anderson, Canton, Ohio  
Ralph Anderson, Yosemite Nat'l Park, Calif.  
Miss Julia Austen, Lacona, N.Y.  
G. D. Aydelett, Norfolk, Va.  
Ralph N. Bair, Glenside, Pa.  
F. M. Beckett, San Jose, Calif.  
Heinz Bertelsmann, Berkeley, Calif.  
Hans Bothe, Riverside, Calif.  
Robert N. Bushman, Schenectady, N.Y.  
Roland Calder, Berkeley, Calif.  
\*Lloyd J. Cartwright, Saginaw, Mich.  
Margaret B. Clarke, San Francisco, Calif.  
Raymond B. Collier, San Francisco, Calif.  
Herbert Crow, San Francisco, Calif.  
Dolores Doolin, San Francisco, Calif.  
Ben Duggar, Madison, Wis.  
\*Wilson D. Ellis, Berkeley, Calif.  
John L. Filson, Berkeley, Calif.  
Mortimer Friedman, New York, N.Y.  
John Funaro, Springfield, Mass.  
LeRoy D. Haskins, Green Bay, Wis.  
\*Johanna E. Heim, San Francisco, Calif.  
Julius Homoly, Cicero, Ill.  
Delbert E. Jack, Berkeley, Calif.  
James L. Keane, Hartford, Conn.  
Miss Thelma R. Kent, Christchurch, N.Z.  
Ernest W. Kestner, Schenectady, N.Y.  
Murray Knowlton, San Diego, Calif.  
Stephen F. Koyacs, Cleveland, Ohio  
Ray Kuhn, Cleveland, Ohio  
Charles E. Lamphere, Oakland, Calif.  
S. C. Leonard, Schenectady, N.Y.

Albert R. Lindgren, Rochester, N.Y.  
Richard H. Mercer, San Francisco, Calif.  
H. W. Meyer, Schenectady, N.Y.  
\*A. G. Milotte, Ketchikan, Alaska  
Henry L. Moreland, Dallas, Texas  
M. Moskowitz, New York, N.Y.  
George E. Myers, Lincoln, Neb.  
George S. Nalle, Austin, Texas  
\*Don Kirby Oliver, San Francisco, Calif.  
Ronald W. Olsen, Schenectady, N.Y.  
Harry E. Perl, Oakland, Calif.  
R. Pfeifer, San Francisco, Calif.  
Miss Elsie Phelps, Santa Barbara, Calif.  
Frank X. Reilly, Pottsville, Pa.  
Ralph Rex, St. Louis, Mo.  
Dr. Jess A. Riggelman, Los Angeles, Calif.  
J. T. Ritscher, Seattle, Wash.  
J. H. Ritter, Cincinnati, Ohio  
F. M. Rutter, Vancouver, B.C.  
J. H. Sammis, Peoria, Ill.  
J. W. Schuler, Akron, Ohio  
George Semonsen, San Francisco, Calif.  
T. H. Shaw, Schenectady, N.Y.  
Alex Silverberg, Cleveland, Ohio  
A. W. Swingler, Schenectady, N.Y.  
J. K. Trafton, San Francisco, Calif.  
Dr. B. H. Wardrip, San Jose, Calif.  
William E. Wing, San Francisco, Calif.  
Victor T. Yamakawa, San Francisco, Calif.  
G. T. Yang, Peiping, China  
Miss A. Zachary, San Francisco, Calif.  
Richard Zaremka, St. Louis, Mo.  
\*Denotes prize winners.

# Correspondence

## Competition Comment

Dear Sir:

In your criticism of my print, "Pile Cluster" you ask, "What do you think?" Assuming that this general "You" might well include myself, I am submitting a few remarks on the subject.

First let me dispel any suspicion that I look upon this print as a masterpiece. In reality I like one or two of the other amateur awards more than my own and would have had no kick to make if it had been placed fifth instead of first.

I agree that the picture would have been better had the rope extended farther to the left, but do not agree as to the recommended trimmings, especially the latter.

Before exposing the negative, I stalked about for a considerable time to get what I wanted and no more. Then, after making a contact print I spent much time going over it with a pair of "L's" to see if I could eliminate some of the image, finally utilizing almost all of the negative. I did not do this as one struggling with a problem in trigonometry but only by "feel".

I felt that the iron ring near the top could not be dispensed with nor the out of focus building on the horizon at the left. This building seems, in my mind, to balance the great mass of the piles, the more so because it is indefinite and because it is a great distance from them, in the third dimension. (Granting that a plane surface can have three dimensions).

Your trim would simplify this, already "severely simple" print, to the extreme and make it little more than a series of vertical lines.

Yours very truly,  
Ralph Rex.

Dear Mr. Young:

Regarding the Competition pictures in the September *Camera Craft*—I am very well satisfied with Mrs. Fletcher's "Mitzi" as it stands, but agree that a slight deep-

ening of the shadows in the central part of the neck, without altering the other tone values, might be an improvement. That, I believe, is what you suggest. Being more accustomed to use of brush, pencil, or pen, that to manipulating negatives, I usually think in terms of the print.

Mr. Burritt's "Horses" is not too diffused to suit me. If it is to have more space at the left, I think space should also be added at the top. Titles are truly important. Wonder what you would suggest — Homeward Bound, Rest Draws Near, At Eve the Weary Horses Homeward Wend Their Way, or what? I think that a dark—not necessarily black—border would improve most pictures, especially this one and the two on page 443.

As to the light patch at the left of "The Towers," I would subdue it and somewhat break it up, but not eliminate it entirely. Tried this out on the reproduction. It seems to me that your suggestions for trimming occasionally disregard the proportions and total effect of the print. Further trimming of this one would, I believe, injure it—that to the vertical shadow at the left 30 to 40 per cent. Something of the sort also applies to "Pile Cluster." One may easily have too much concentration. While the center of interest is at the base of the piles, a large part of the attraction of the picture depends on its fine, open, effect, and this would be sacrificed by much trimming at the left. If the distant building could be moved about its width to the right, then trimming to its left, as at present, might help. Trimmed as you suggest, the picture would still be good, but if I could have only one version, I'd prefer it as it is.

"Evening Shadows," I agree, would be improved by trimming off the bottom and a trifle from the right. I would add a

dark border. In the reproduction the sky appears to me of the correct tone—I would not darken it.

With a brush I added a small tree at the left of "Birches" with pleasing result. A dark border would help keep the eye in the picture. It is fine anyway.

While the girl's arm is too prominent in "West," page 444, and the whole composition appears a bit out of balance, any trimming seems to me to make matters worse. "The Crystal Tree", same page, is rather flat, and trimming off the right makes it yet flatter, but the "black tree" in the distance might be made somewhat lighter—probably a little retouching on the negative would do it.

Sincerely,

A. G. Miller.

### Photography Aids in Safety Work

Dear Sir:

... The writer is a member of the California Highway Patrol who has for the last three years been specially detailed to Safety work in the schools of his county. It is my duty to safeguard the children in the buses and as pedestrians as well as to go before them in the schools and teach them the safety rules and laws. I conceived the idea that motion pictures would hold the interest of the children far more than speeches and that instead of boring them by repetition that pictures showing the right and wrong actions in traffic as well as bad accidents encountered in the daily work would be the greatest possible medium of instruction. Therefore I purchased a 16 mm. motion picture camera, a projector, a large beaded glass screen capable of showing brilliantly enough for a large auditorium and the necessary equipment for splicing, titling, etc.

I then arranged with the schools for honor children in Safety to be appointed to act out parts on the highways and let the children act out parts in realistic accidents showing the right and wrong actions. With the help of local police departments and responsible adults in cars these shots were made so realistic that even the teachers were fooled. Needless to say the children in the 100 odd schools

of the county can hardly wait for the next visit of the officer with his pictures and are so well versed in the laws and rules that the county has won first place amongst the 58 other counties of the state for its Safety work as judged by the Parent-Teachers' Association. As for actual results not a single child under the jurisdiction of the Highway Patrol has been killed on the way to or from school in the last three terms.

Being equipped with a sidecar I carried my motion picture camera with me at all times and have been able therefore to get action pictures in many bad accidents. This has been so successful that I decided to purchase and carry a "Still" camera and combine the two methods for both Educational purposes and for the purpose of obtaining evidence. . . .

Well, anyway I am the snap shootinest Cop that ever rode down the pike and seriously I am only sorry that I didn't take it up long ago for photography is the greatest aid to any police officer, and just last week the Superior Court called a night session for the special purpose of letting the jury in a murder case view my motion pictures taken at the scene and the little Leica furnished many enlargements which were entered as exhibits in the same case. . . .

**Camera Craft** has been a great aid to me in learning what little I have picked up in photography the past three months, especially the articles on miniature photography. This fellow William Mortensen who contributes to the magazine lives on my beat at Laguna Beach and those who marvel at his work should have the opportunity, as I have, to visit his studio and see the originals. It's an education in itself. Every time I visit his salon I rush home and feverishly turn out a batch of so-called prints, take one look at them and heave 'em out the window. I can't understand why we both can't make the same looking stuff when we both push the same kind of shutters. His looks like Art and mine looks like ———.

### On Guard, Mr. Mortensen

Oh Well, everybody to his line and I defy him to make one of my messy look-

ing wreck on the highway look like one of his salon exhibits but I'll bet I can take one of his salon exhibits and make it look like a wreck on the highway.

I may not know much about photography yet but I am going to learn and I think this fellow Mortensen would be a dandy instructor. He doesn't know yet that I am to be the envy of lovers of photography the world over in that I, a lowly motor-cop will benefit by pearls of wisdom dropped from the lips of the head of the shutter boys, when real photographers pay handsomely for the same privilege. How come? Well, you see Mr. Mortensen lives on my new beat and I understand he drives a car. As Venus the Idealist said to Vulcan "Oh Darling, look over there at that gorgeous sunset." Vulcan the Realist, who has just scraped three fenders by taking his eyes off the road—"Sunset Hell, do you hear that siren back there?"

Sincerely yours,

Geo. W. Peterkin.

August 1, 1934

### Pure Photography

Dear Mr. Young:

Anent all of the discussion, verbal and literary, which has followed the appearance of the doctrines of two groups of thought in contemporary photography in your magazine, perhaps a further word from one whose tendency is definitely "purist", after too many years floundering in the chaotic byways of photographic "art" in an attempt to properly orient himself, will not be amiss.

In attempting to define photography as an art medium, and the photograph as a work of art, we must realize that significance plays an extremely important part in the discussion at hand. To go fully into this phase would entail the usurpation of more space than would be fair to other contributors, but a brief touching upon many of the more important points may prove of value.

Let us define a work of art as something which creates a significant and profound emotional reaction in the mind of the observer. The reaction to many of the photographs of the Purist group, by one uninitiated to, or lacking the deeper com-

prehension of the function of art, may be one of shock, ridicule, or disdain. And such a reaction is readily understood. It is comparatively simple to understand the superficial emotions that the Romantics cater to and the average human being finds no difficulty in getting a figurative "kick" out of their pictures. But surround him with the work of the Purist group and he is in a quandry. And the reason is just as obvious. He has been taken beyond superficialities and has been placed in the presence of more fundamental—more significant—aspects for which his ego is little prepared.

Lack of understanding or experience often creates an antagonistic reaction, especially in the mind of a partially integrated person, because it precludes contemplation and subsequent understanding on the part of the observer, and our average human being when confronted with significant and maturing work of the more wholly integrated artist resents being required to think—he wants it done for him. It is one thing to inflame the surface emotions, and quite another to augment the soul.

The art of the camera is, perhaps, the most personalized of all arts. And yet it is but a means to an end. In the first place, the photograph cannot be judged as can the modern painting or sculpture, because we are dealing primarily with realities in every sense of the word. To photography abstraction does not exist except as it is inspired as abstract thought in the mind of the observer. When you see a photograph which is a true representative of the medium as an art form, you should see more than the record of an actuality, you should sense the physical viewpoint of the person behind the camera, and be inspired to contemplation of a similar sort yourself. Cupid and Psyche are far more relevant than Venus and Vulcan.

Just as much as painting or sculpture, photography can be an artists means of telling you what he thinks and feels. It is just as much a subtle and delicate propaganda of a sort as are any of the other arts. By the extent to which the photographer can create reflection and an under-

standing of his interpretation and aims, and by the extent to which these are **significant**, so is he measured as an artist, and so is his photography a true representative of the medium and an art form.

Even within the limitations of the rendering of line, pattern, and texture; mass and form; nuances of light shadow; static representation of light-action or its effect; or reality itself; there is a vast opportunity for the application of selectivity without recourse to the varied manipulations of the darkroom. And contrary to many popular beliefs, the Purist is far from a slave to his camera or technique. On the contrary, by being master of it he is the better equipped to create the "human" contact between himself and the spectator

—to project the eye of his spirit that the soul of the spectator may see.

In closing it may be fitting to state that these observations should not be construed as axioms of the Purist group as a whole, although there is much in which there is accord, but are more in the manner of a personal contribution toward a subject in which there is far too much of romantic imaginings and far too little of a going back to the fundamentals of a basic ratiocination.

Sincerely,

Meidel Applegate.

This closes the present discussion as to Pure vs. Romantic photography in this department until such time as evolution or new incidents seem to warrant a renewal of the debate.—Ed.

# Photographic Digest

**Dr. H. D'Arcy Power, F. R. P. S.**

**The late George E. Brown, Thirty Years  
Editor of the B.J.P.**

Early in 1904 I left San Francisco for a European tour, and particularly to make personal contact with the then leaders of Photography as a Fine Art. My own labors for the previous five years had been directed to the standardization and improvement of the Stenop (Pin-hole) as a maker of pictures, and to the Gum process as a controllable printing surface, and was in general agreement with the Linked Ring and its American expansion under Steichen, Stieglitz, and Cobourn. These men and others I wanted to meet in the flesh, as also Demachy and Puyo with whom I had only a corresponding acquaintance. I happily attained most of my objectives, and made other treasured contacts that were not foreseen but not less appreciated, among these was the subject of this notice.

In New York I missed Steichen but had a heart to heart talk with Stieglitz on the relation of photography to other arts.

From Tennant of the Photo Miniature I received the commission to write my "Advanced Pin-hole Photography" and went on to London in a very contented state of mind and there commenced the round of the journals and their editors. Passing over the Royal Photographic Society, the British Journal of Photography and the Amateur Photographer, then under the editorship of R. Child Bayley, Mortimer not having yet foresaken the storms of the sea for those of the editorial office I arrived at the sanctum of Snowden Ward of unforgettable and delightful memory, then editor of the "Photogram", writer, photographer, historian, and leader of the Canterbury Pilgrimages, whose geniality, kindness to a strange wanderer I have never forgotten, and whose early death I have always deplored. Sitting in a side room I noticed a tall pale young man very sparing in words, and reticent in manner, and in every way a contrast to the jovial volubility of Snowden Ward who I mistook for his principal but who



was in fact his associate editor. This was G. E. Brown, then 32 years of age and already firmly planted on the upward road. Educated at Dorchester Grammar school and Birmingham University, where he was a Tangye scholar in chemistry at the age of 20, he was a few years later appointed analytical chemist to the Great Western Railway. This knowledge of chemistry was an excellent basis for his future life as an editor of the most important photographic journal in the world. I had little opportunity at this time to know a man who was only a few months later to step into the editorial chair of the *British Journal of Photography* and whose interest in my labours opened the pages of that journal to all I wrote from that time to the time of his death. The friendship born of the pen was cemented by our frequent contact after my return to Europe 20 years later, and I never missed the opportunity of a chat whenever I came to London. The last occasion was about two months ago when white with illness and drawn with pain he still showed his interest in current photographic problems.

The editorship of a great journal covering such a vast field as the photography of today absorbs the whole time of a man less gifted and capable than Brown, but his knowledge of French and German led him to translate many articles from these sources for the B.J.P.; he also edited the English translation of L. P. Clerc's work "*La Technique Photographique*" and the forthcoming *Ilford Manual of Photography*. Notwithstanding all this work he found time to write a book on Robert Louis Stephenson "*A Treatise on Copyright*" and two works on "*Indexing*". These things and the unavoidable drudgery of supervising the output of a weekly journal of the importance of the B. J. P. leaves no time for art work or original research, but in sacrificing these he made a sacrifice to do as great a work, for which we shall always stand his debtor.

### **Altering the Contrasts of Over-Hard Negatives**

In the B. J. P. of March 23rd, Mr. W. B. Ferguson advocates the use of a lightly printed positive bound in register with

the too contrasty negative. Of course this is not at all new. I have used it myself more than a quarter of a century ago and then learned it from others, but Mr. Ferguson, taking advantage of new printing materials, puts it on an altered footing and writes as follows:

I used the method on many occasions, but when plates were on thicker glass than is now used the effect of parallax during the printing was apt to give double lines in spite of the most exact registration.

The advent of thin films made the matter easier, and lately, by the use for the compensating positive of "*Barnet Line Tone Paper for Photo-mechanical Work*," the difficulties have almost disappeared. This paper is on a thin, grainless and very translucent base, and will develop to an almost opaque black.

I have some cut-film negatives, taken thirty-seven years ago, which, by accident, were grossly over-developed, and would not give even a passable print on the softest bromide paper made. If printed to give details in the light, all shadow detail vanished in blackness; if printed for detail in the shade, the other end of the scale was detailless white paper.

But, by making a print of suitable depth on the Line-tone paper, mounting it in register on the back of the over-contrasty film, both mounted on a sheet of plain glass for convenience of handling, I exposed at a distance of at least one metre to a Pearl Osram, and get from this "brick wall" negative a satisfactory print with details both in light and shade, and no trace of double edges due to parallax.

The actual negative has not been interfered with in any way, and so remains right for lantern-slide making or other purposes.

The excellent *Barnet Line Tone* paper—as no doubt that of other manufacturers—puts in the hands of photographers a new power of dealing with over-developed negatives.

I hope your correspondent A. A. M. may find it useful.

This is an undoubted advance on the glass plate corrector and with a correct

printing of the paper positive, should give excellent results. Barnet Line Tone paper may not be on sale in the States but Kodak Kodaline belongs to the same class as does the Ilford Photo-mechanical and their Record paper, both of which I have used for making paper negatives in the camera and can testify to their transparency and lack of grain.

### Parallax Focussing

I think that we are all pretty well acquainted with the plan of facilitating exact focussing on the ground-glass by cementing on its surface a microscopic cover glass with Canada balsam, first marking its center on the ground glass with a distinct cross to keep the eye fixed at this distance point. The balsam eliminates the grinding of the glass and the part of the image in view is seen with great distinctness and may be the better focussed, but even so may not attain perfect accuracy. Here is where parallax focussing comes to the rescue. Mr. Victor Turl in the

Brit. Journ. Phot. Dec. 1, thus describes it:

The image is focussed in the usual way on the ground part of the screen. A magnifier, carefully adjusted to give a sharp image, is then placed over the clear circle. One then sees both the image proper and the cross. If the image is properly focussed it is possible to move the eye either up or down or from side to side without any sign of the cross being displaced relatively to the image. If there is the slightest displacement, the image is not sharply focussed. If the cross moves **downwards** as the eye is raised, the extension is too short; on the other hand, if the cross is displaced in the **same direction** as the eye is moved the extension is too long. The cost is negligible, the small circle does not interfere with the ordinary use of the screen, and it is there when wanted. This method is extremely useful when focussing in badly lighted interiors, the image under the magnifier and within the circle appearing very much brighter and much more easy to focus.

## Selling Points - Points to Sell

John P. Lyons

He dropped into my office several weeks ago.

"Just how extensive is this market for editorial photography?" he began.

He was a doctor, and a good one, I am sure. For years he had "fooled around" with photography. Just as recreation, a hobby. He had an "attic full of expensive paraphernalia." He had read quite a few books which indicated photos could be sold. And had read others who insisted "it wasn't quite so easy." And so, he wanted to know, "definitely, in dollars and cents" the extent of the markets for editorial photography.

"How many periodicals are you personally acquainted with?" I asked, "And how many are illustrated, and with what?"

He counted off several newspapers,

about thirty general magazines and some twelve or fifteen trade papers. All were illustrated except four or five medical journals. The photography used ran from a sprinkling of excellent pictorial art, to 80% "simply photos" recording a news item of current interest, such as can be snapped with most any camera.

"Do you like figuring?" I asked.

"Enjoy it!" he agreed.

"Let's figure it out." I counseled, reaching for a book. "Here is a book of 1326 pages, a "Directory of Newspaper and Periodicals" 1934 edition, published by the great advertising firm of N. W. Ayer & Sons of Philadelphia. It's an authority you will find in most advertising offices and libraries. Let us skip the 1491 periodicals published in Canada and the 189

published in the Territories of the United States. We will take only those periodicals published in the United States proper. Here are 2000 newspapers published daily except Sunday. That means 313 days in the year. Let's multiply the number of papers by the number of days to find how many different editions are published in a whole year."

So, for an hour or more we added and multiplied. The final summary or recapitulation, as we worked it out was as follows:

Newspapers	Total Annual Editions
2,006 Daily ex. Sun. x 313 days .	627,878
542 Sunday editions x 52 . .	28,184
40 Tri-Weeklies x 156 issues .	6,240
342 Semi-Weeklies x 104 issues	35,568
10,543 Weeklies x 52 weeks . . .	548,236
3 Fort-Nightlies x 26 . . .	78
8 Semi-Monthlies x 24 . . .	192
15 Monthlies x 12 months . .	180

13,499 Total

**General Magazines**

78 Daily ex. Sun. x 313 days .	24,414
7 Tri-Weeklies x 156 . . .	1,092
57 Semi-Weeklies x 104 . . .	5,928
1,038 Weeklies & Sun. Edits. x 52	53,976
115 Fort-Nightlies x 26 . . .	2,990
130 Semi-Monthlies x 24 . . .	3,120
1,745 Monthlies x 12 . . . . .	20,940
114 Bi-Monthlies x 6 . . . . .	684
364 Quarterlies x 4 . . . . .	1,456
118 Miscellaneous . . . . .	118

3,766 Total

**Trade Journals**

115 Dailies ex. Sun. x 313 . . .	35,995
1 Tri-Weekly . . . . .	156
9 Semi-Weeklies x 104 . . .	936
515 Weeklies x 52 . . . . .	26,780

31 Fort-nightlies x 26 . . . .	806
68 Semi-monthlies x 24 . . . .	1,632
1,544 Monthlies x 12 . . . . .	18,528
71 Bi-Monthlies x 6 . . . . .	426
91 Quarterlies x 4 . . . . .	364

2,445 Total Total annual editions 1,446,897

My caller whistled at the total. 1,446,897 separate editions. Not all will use photography. But many are entirely pictorial, most will use some photography, and a heavy percentage will be profusely illustrated. Let us figure on an average of five pictures per edition. The periodical uses a hundred in every issue will average up those which do not use any. Five would be a very conservative average. And that means 7,234,485 pictures used annually.

"As to the dollars and cents," I continued. "Let us figure \$2.50 as an average price per photo. \$2.50 is a common rate. Some do pay less, some offer only 50c per accepted picture. But others pay ten, twenty, yes even hundreds of dollars for pictures. So let's multiply the total pictures by a conservative price of \$2.50 each. We have a grand expenditure for pictorial photography, estimated of course, totaling annually, \$18,086,212.50.

I started to show my caller that the telephone directories of the United States listed only seven thousand photographers and that if they alone shared this market it would be \$2,500 annual income for each. BUT—the Doctor had had enough. An eighteen million dollar annual market was satisfactory enough. He felt that he could carve his share of this vast melon, of which the average photographer is not even aware.

# Club Notes

## Forthcoming Exhibitions

■ The Canadian International Salon of Photographic Art. Address, H. F. Kells, Sec., 133 Cartier St., Ottawa, Ont., Canada. Limit 4 prints. Address prints to: Canadian International Salon of Photographic Art, National Gallery of Canada, Ottawa, Ont., Canada. Entry fee \$1.00, closing date for entry blank and fee, Oct. 15, 1934, for prints Oct. 31, 1934.

■ **Sixth Chicago International Photographic Salon.** Address, Salon Committee, Chicago Camera Club, 137 No. Wabash Ave., Chicago, Ill. Entry fee \$1.00, limit four prints, mount sizes 14"x18" and 16"x20", closing date Nov. 1, 1934.

■ **18th Salon Camera Pictorialists of Los Angeles.** Address, The Secretary, Camera Pictorialists of Los Angeles, Los Angeles Museum, Exposition Park, Los Angeles, Calif. Limit 4 prints, entry fee \$1.00, closing date Nov. 1, 1934.

■ **2nd Seaboard Salon of Photography.** Address Alfred A. DeLardi, Seaboard Camera Stores, 222 So. 15th St., Philadelphia, Pa. Limit 4 prints, no entry fee, closing date Nov. 3, 1934.

■ **Third Annual Minneapolis Salon of Photography.** Address R. W. Burnet, Minneapolis Camera Club, 260-Euclid Place, Minneapolis, Minn. Entry fee \$1.00, limit 4 prints, closing date, Nov. 12, 1934.

■ **The Northern Photographic Exhibition—Manchester, Eng.** Address, John Chapman, City Art Gallery, Mosley St., Manchester, England. Limit 6 prints, no entry fee but the equivalent of 3/6 must be sent for return of prints. Closing date for entry forms Nov. 7th, for prints, Nov. 14, 1934. Send prints unmounted.

■ **8th International Christmas Salon of Photography.** Address Mr. Em. Borrenbergen, Dambruggestraat, 265, Antwerp, Belgium. Entry form and entry fee of 5 Belga should be sent to Mr. J. Van Dyck, Sec. of the Fotografische kring Iris, Ballaerstr. 69, Antwerp, Belgium, before Nov. 15, 1934. Closing date Nov. 15, 1934.

■ **2nd Wilmington (1st International) Salon.** Address E. W. Sautter, P. O. Box 818, Wilmington, Delaware. Limit 4 prints, Entry fee \$1.00, closing date Dec. 1, 1934.

■ **Mardi Gras Exhibit of Photography at New Orleans.** Under the auspices of the Miniature Camera Club of Louisiana. Address Victoria Enos, Sec., 322 Royal St., New Orleans, La. The exhibit is open to prints from any size camera and to amateurs and professionals alike. Limit 4 prints, entry fee \$1.00, closing date Feb. 1, 1935.

#### **Re. Canadian International Photographic Salon**

It has been drawn to the attention of the Committee that Paragraph 5 of Entry Form is ambiguous as to the size of prints permitted in the mails from United States and Great Britain, that the word "foreign" should not be so all-inclusive from the point of view of restricting prints to 18" in size.

We stand corrected and make haste to assure Exhibitors resident in the United States and Great Britain that this restriction does not apply, and that prints mounted 16"x20" or larger can be shipped via Parcel Post in Canada, the United States and British domestic restrictions being the only limiting factors. Canadian regulations will take care of parcels which have a combined total of length and girth up to 6 ft. This allows for a parcel up to 21"x25"x2" thick.

It is also permissible for United States and British exhibitors to send prints unmounted if they so desire.

The Committee regrets this ambiguity and wishes to assure all intending exhibitors of its desire to be of assistance.

#### **Amateurs News Shots Wanted**

Mr. Frank R. Church, 8829 Harrison St., Oakland, Calif., is interested in ob-

taining motion pictures in either 16 mm. or 35 mm. size of any events of public interest occurring in San Francisco, Oakland, Berkeley, or the University of California, during the years 1913, and 1914. Mr. Church is willing to pay reasonable prices to anyone having such material. Write to the above address or phone Lakeside 3974.

#### **Unique Exhibition**

The Camera Club—New York, announces that its Exhibition of "PRINTS OF FIFTY YEARS AGO AND THOSE OF TODAY" will be hung on the walls of The Camera Club, 121 West 68th St., New York City from November 1st to the 30th, inclusive.

A charming collection of prints of "Old New York" taken by the late Mr. W. Townsend Colbron, a Life Member of the Club, and over fifty prints taken by the masters of the Eighties, will be shown.

Prints of today will be most ably represented by a superb showing of the work of Dr. D. J. Ruzicka, a member of the Club, whose prints have been hung in Salons throughout the world. The public is cordially invited to attend.

#### **Fireworks at Fort Dearborn**

... Came then Sam Silverstein with a

talk on the elements of composition. Mr. Silverstein is a Purist—with a Capital P—whose soul abhors pigments, pencils and crayon sauce, and who projects on the paper the picture that flashed through the shutter, no more, no less.

And says so emphatically.

But for this, the evening would in all likelihood have been uneventful. It so happened that the audience consisted largely of what Sam regards as "Impurists" who believe the picture is the thing and that the end justifies the means. The ominous silence that followed his able talk was broken by a bellowing as of the Bulls of Bashan. Dr. Max Thorek exploded to his feet and hurled anathemas at the Ultra Moderns in Sanskrit, French and Slang. Shigeta and Duncan tried vainly to get the boys out of the trenches before midnight, while President Dewey, perspiring freely, maintained an anxious neutrality. But when the smoke of battle cleared, Horatius Silverstein stood there still—head bloody but unbowed.

Print criticism night found every one in high spirits. In the absence of Mr. Shigeta, Dr. Max Thorek conducted the clinic. The surgery was painless but complete. Jack Hazlehurst hovered near the print table all evening like Dionne over his quintuplets, and presently it developed that he had brought a print "Narcissus" for which he had high hopes. After an amazing exchange of amenities between Jack and the Doctor, "Narcissus" was selected as the best print of the evening.

#### **New Club**

A new photographic society has just been organized in Cincinnati under the name of Queen City Pictorialists. At the first regular meeting the following officers were elected:

Chas. H. Partington, Pres.

P. H. Oelman, Vice-Pres.

Harry W. Greene, Sec'y.

Edwin L. Taylor, Treas.

Dr. John H. Highberger and Carlotta Corpron with the above officers complete the board of directors.

The announcement of the return of

Mr. Partington to the ranks of active pictorial workers is particularly gratifying to those who remember him as an authority on Bromoil and Bromoil Transfer as well as an important contributor to the literature on these processes.

Meetings of the Queen City Pictorialists are being held at the Roanoke Bldg., on Clifton Ave., at Ormond Place each first and third Tuesday in the month.

Communications should be addressed to the secretary at 359 Resor Ave.

#### **Monterey Peninsula Camera Club**

The Monterey Peninsula Camera Club wishes to announce that they have reorganized the former club, elected new officers and can boast of some twenty-odd members all advanced in the field of photography and enthusiastic supporters of the study.

The officers as elected are Beauford B. Fisher, president; Russel H. Cummings, secretary; and John Culp, Treasurer. Two meetings are held per month, one regular and one field day, Mr. Fisher's studio being used for the former.

A recent meeting was characterized by a round-table discussion with the honorable Edward Weston.

#### **Seattle Photographic Society**

The main event of August was the First Annual Picnic, which took place at the Shriners Country Club, at Lake Ballinger, nearby, on August 5, 1934. The affair was very enjoyable, members being there as the guests of Member M. J. Forsell. It was estimated by some that cameras and equipment brought out by the members there present represented a probable investment of upwards of \$2,000. The film manufacturers would have been in raptures to see how lavishly their product was used up.

On Tuesday, September 4th the first regular meeting following the summer "quiet" season was held at the Society headquarters, 315 Madison Street with about 65 present, including guests. There was a display of prints for the regular monthly competition, and also a Special Competition for Picnic Pictures, on the walls. Member P.L.A. Lines delivered a stereopticon lecture on Color Photogra-



phy. The best Picnic pictures were scheduled to be donated to the Shriners as a token of goodwill and for hanging on the walls of their Club House. Five more new members were taken into the Society during the Summer season.

Owing to the improvement in the Society's financial condition following the payment of dues by a large number of the members, it will now be possible to complete the dark room facilities, and a special committee is now engaged on the problem of how best to do this.

Pictorial Competitions are now to be held monthly instead of fortnightly, as heretofore. The intervening meetings are to be devoted to Scientific and technical subjects connected with photography.

New address of Secretary Donald R. De Voe: 2347 North Broadway, Seattle.

### Pictorial Photographers of Victoria

The Pictorial Photographers of Victoria were organized in June of last year, and, while the membership is comparatively small as yet, all the members are most enthusiastic.

Meetings are held on the first Friday of every month at the Empress Hotel, the society's headquarters. Two exhibitions have been held, both attracting much favorable comment.

The officers, elected to serve indefinitely, are Joseph Grant, president; Richard Muirhead, vice-president; and Richard Colby, secretary-treasurer.

We would welcome communications from other photographic clubs, which should be addressed to the Secretary, R. L. Colby, 631 Pine Street, Victoria, B. C.

## Notes and Comments

### Motion Picture Cameras Fall Over Eleven Miles in Stratosphere Flight; Damage Surprisingly Small

Two Bell & Howell Eyemo motion picture cameras were carried in the gondola of the balloon used in the recent National Geographic—Army Air Corps Stratosphere flight, which began at Rapid City, South Dakota, and ended, as a result of a forced descent, near Holdrege, Nebraska. The two cameras fell with the gondola eleven and one half miles. One was in substantially good condition after its record plunge, the other slightly more damaged.

Captain A. W. Stevens, U. S. Army, together with Major W. E. Kepner and Captain O. A. Anderson, of the flight personnel, had intended starting the cameras to make movies of the flight at an altitude of 60,000 feet, but it was at 60,000 feet that the balloon was disabled and began its descent, and there was no

opportunity for movie making at that crisis, nor later.

"Had the flight continued," states Captain Stevens, "We would have exposed about 80 feet of film in the next hour and about 120 feet more in the succeeding hour. I also had three extra rolls of film to reload with in case we had time to make still more pictures."

The Eyemo cameras were selected for the flight, among other factors, because of their extreme lightness of weight—a vital point when every additional ounce of cargo would cut down the maximum height that could be attained.

One camera was equipped with a lens of six inch focal length and the other a 3¾ inch lens. This was to permit taking pictures of different magnifications.

Two pieces of specially selected and carefully checked optically flat glass were mounted in the gondola, forming two portholes through which the cameras pointed. The cameras operated automatically following the winding of heavy



mainspring. This automatic operation was to permit the operator to attend to other matters between intervals when the mainspring had to be wound.

Inasmuch as long before the projected altitude of fifteen miles was attained, it would be impossible for the human eye to cut through the tremendous depth of atmosphere and see the surface of the earth from the gondola, heavy red filters and film sensitized to infra-red were to be used. In this way the camera would be able to see what the human eye could not.

In addition to showing the appearance of the earth at different altitudes, the movies would have indicated the manner in which the balloon rotated as it ascended.

Regarding the condition of the cameras after their plunge, Captain Stevens states: "Except for two small dents in the case, one camera is substantially undamaged. The lens is all right, and so probably is the mechanism. The other camera had its side and front plates knocked off and the mechanism injured. Also the lens is missing. In searching through the wreckage, this lens could not be found, and it is

probable that it was driven into the ground. Possibly some spectator afterwards took it without saying anything to anybody."

The two cameras are now in Washington, where an inquiry into all the details and circumstances of the flight is now in process. Following the inquiry they will be sent to the office of the Bell & Howell Company in Chicago, where they will be placed in the Company's famous motion picture museum.

#### **New Willoughby Bargain List**

Willoughby's, 110 W. 32nd St., New York, announces a new bargain list #934. Anyone who has previously obtained one of these publications does not need to be told that they are always crammed with bargains that are bargains. In addition to saving money one enjoys a feeling of security in dealing with a firm of long standing and irreproachable integrity. Write for your copy today.

#### **Doris Rogerson at Smith Bros. Inc.**

The many photographic friends of Doris Rogerson who learned with regret that she was no longer connected with Adams & Co., will be pleased to hear that she is now in charge of the new photographic department at Smith Bros., 1721 Broadway, Oakland, Calif. Miss Rogerson is justly proud of her new department which carries a complete line of photographic supplies and equipment for the amateur, the professional, and the movie maker. An invitation is extended to all old friends and acquaintances to drop in for an inspection tour.

#### **Film Rental Catalog**

BASS announces a new 64 page 16 mm. Film Rental Catalog. This catalog is unique in its fine offerings of rental films at low prices. Also a full library of sound on disc and sound on film subjects. Catalog will be mailed to anyone interested within a radius of 1000 miles of Chicago which is the extent of our film rental service.

Also Bass Bargaingram #214 of 16 mm. Apparatus is now ready. Copy cheerfully mailed to anyone on request. Write to Bass Camera Co., 179 West Madison St., Chicago, Ill.

### **E. K. Stores Showing New Miniature Enlarger**

Eastman Kodak Stores throughout the country are now proudly displaying the new Eastman enlarger for miniature negatives, of which we will tell you more later. Drop into your local E.K. Store and take a look at it. If you are not at present interested in this particular item, drop in anyway. There is sure to be some new item of interest to you, and we know of no better way to keep in step with the rapid developments that are constantly taking place in photography. The sales personnel will give you a friendly courteous welcome and will be glad to assist in solving any photographic problems.

### **Jack Powell Free Line Etching Screen**

Many an amateur has wondered how various prominent pictorialists have been able to impart an etching-like texture to their prints. The Jack Powell Etching screen does this for you simply and easily. One need only place it in contact with the printing paper during projection. The texture which is obtained, while not the same is similar in effect to that seen in the prints of William Mortensen, many of which have appeared in this magazine. Professional photographers will find this screen very helpful in increasing sales to discriminating clients who want something out of the ordinary. The Craig Movie Supply Co., 1031 So. Broadway, Los Angeles, Calif., are the sole distributors, write to them today for full particulars, or see the screen at your dealers.

### **Bargains**

The Central Camera Co., 230 So. Wabash Ave., Chicago, Ill., is now holding a big inventory clearance sale and have prepared a booklet listing a great number of bargains. The firm states that the prices at which this merchandise is now available is the lowest they have offered in their 35 years of business. Write promptly to Dept. CC-10H, so that the item in which you are interested will not be sold out.

### **Exposure Meter Cases**

J. L. Hamar, 35 Druid Rd., Summit, N. J. is offering a strongly constructed,

velvet lined, leather case for Weston Universal or Leicameters. A belt loop is provided so that the meter may be carried in that convenient fashion. Good meters cost money, and their accuracy depends upon delicate adjustments. It therefore seems good policy to protect them from the weather and from bumps. Mr. Hamar will provide such protection at the very reasonable price of \$1.45 postpaid.

### **Coloring Photographs**

The Peerless Color Laboratories, Rochester, N. Y., inform us that they have some very interesting and instructive literature on coloring photographs in either water color or oils, that is available on request. This firm have been manufacturing colors for this purpose since 1885 and their long experience guarantees that their recommendations regarding methods and materials will be right.

### **Northeast Universal Reflector**

The Northeast Products Co., Tewksbury, Mass., have designed an efficient low-priced reflector especially for use with Photoflood lamps. When one stops to consider that a good reflector will increase the effective power of a lamp at least three to four times it becomes evident that it is folly to try and do without them. The above mentioned reflector will fit any home light socket. Write to the above address for full particulars.

### **Price Reductions on Photoflood Lamps Announced by General Elcetric**

Substantial price reductions on the popular MAZDA Photoflood lamps have been announced by the Incandescent Lamp Department of General Electric Company at Nela Park, Cleveland, Ohio.

Photoflood #1, the standard size, has been reduced from 35c to 25c, list.

Photoflood #4, the larger size, has been reduced from \$2.55 to \$2.00, list.

These price reductions, made possible by increased sales volume resulting in manufacturing economies, open new merchandising possibilities to the electrical and photographic fields by lowering equipment costs to camera enthusiasts.

Two or three of these bulbs in bridge

lamps or better yet in reflectors, will give ample illumination, especially with supersensitive film. An article appeared in the September 1934 issue of this magazine describing in detail just how to make portrait lightings with these lamps, and the General Electric Co., Nela Park, Cleveland, Ohio have a very helpful little booklet which does the same thing. Write today for your copy.



#### In Memoriam—Lewis B. Jones

On Aug. 25th, Lewis B. Jones, Vice-president of the Eastman Kodak Co., died of a heart attack while walking on his farm in Pittsford. His body was found by his son, Robert French Jones, upon returning from a brief trip to the village.

As the man whose advertising talent was largely responsible for making the Kodak name known around the world, Mr. Jones was a notable figure in his profession. As the officer in charge of Eastman sales and advertising, he was active in the business until leaving his desk the afternoon before his death.

Mr. Jones joined the late George Eastman in 1892, four years after the first introduction of the Kodak. The advertising up to that time had been handled by Mr. Eastman himself, but with the growth of the business he found help necessary and

engaged Mr. Jones. Taking charge of the advertising at once, Mr. Jones remained in active control of that department throughout the years of the company's greatest growth and until 1921, when he became vice-president in charge of sales and advertising policies throughout the world. In that capacity he had continued until his death and he had also been a director of the company since 1919.

Born in Dansville, N. Y., Mr. Jones would have been 68 on August 28. His education was gained in Dansville and in Fairfield, and with the class of 1890 at the University of Rochester, after which, for two years he was engaged in newspaper work with the Rochester **Democrat & Chronicle**, the Kansas City **Herald** and the Chicago **Daily News**.

Throughout 42 years with the Kodak Company his interest in the business was intense, yet he continued to be greatly devoted to his hobbies—farming and sailing. During much of his life he owned sailboats and on his farm he raised registered Holstein cattle which took high honors for milk production. He was an enthusiastic member of the Rochester Yacht Club and a member of the syndicate that built the first Rochester boat for representation in the Canada's Cup races. He was at one time president of the Association of National Advertisers, and was a founder and early president of the Audit Bureau of Circulations, of which he was a director at the time of his death. During the War he served as a dollar-a-year man, writing advertising in association with George Creel.

He was married in 1889 to Alice French of Rochester. Mrs. Jones died a year ago this August. Their daughter, Mrs. Horace Scott Thomas, and their son, who survive them, are the parents of three children: Lewis Robert Thomas, Horace Scott Thomas, Jr., and Lewis Bunnell Jones II. In addition to the Yacht Club and the Psi Upsilon Fraternity, Mr. Jones belonged to a number of clubs and organizations. His fellow directors of the company served as honorary pallbearers at the funeral, on August 27, and a number of his younger personal friends, as active pallbearers.



# Classified Advertisements

This is purely a convenience department for the reader and for that purpose offers Classified Advertisements at cost. 4 cents a word; minimum \$1.00 each insertion. Dealer merchandising ads must be placed in display space at 30 cents per agate line, 10 agate lines minimum. Position Wanted ads, one insertion free. Copy for this department must reach us on or before the 15th and in every case be prepaid.

Items advertised in these columns may be purchased C.O.D. subject to examination and C.O.D. subject to ten days free trial if sent by express. If in doubt, safeguard yourself.

## OUTFITS FOR SALE

♦ Camera Craft, American Photography. The Camera, 10c each; Photo Miniature, 25c each; Photographic books and Annuals, large stock; 11x17 Camera; 6x13 C. M. Stereo Camera; other equipment cheap. F. J. Misch, 2823 N. Racine Ave., Chicago, Ill.

♦ New quarter plate Korona view, three film holders, 8 inch Voigtlander Collinear F:6.8 Koilos shutter, lens hood, K1 filter, case, tripod, \$55.00. Alfred Perks, Pe Ell, Washington.

♦ 8 1/4 x 4 1/4 Speed Graphic, Graflex back, focal plane shutter, film pack adapter, Zeiss Tessar F:4.5, 6 1/2" focal length lens, in Compur shutter, in perfect condition. \$50.00. H. T., c/o Camera Craft, 703 Market St., San Francisco, Calif.

♦ 1x5 Series D Graflex, Kodak Anastigmat F:4.5, 7 1/2" focus lens, cut film magazine, plush-lined case, K2 filter, and tank. Practically new. \$100.00 cash. H. M., c/o Camera Craft, 703 Market St., San Francisco, Calif.

♦ Kodak 1 3/8 x 2 1/2 Vest Pocket, F:4.5 lens, Diamatic shutter, Seal leather case, like new, only \$15.00. Binocular, 7x24 Wide Angle S & A angular field 59°, case and two straps, cost \$41.50, only \$15.00, like new. G. D. Macmillan, 4510 Beacon St., Chicago, Ill.

♦ Carl Zeiss Miroflex Model B, F:2.7 Tessar, plate holders and case \$100.00. 10 inch Carl Zeiss Tele-Tessar, \$40.00. 6 inch F:4.5 Carl Zeiss Tessar \$25.00. Zeiss wooden tripod \$3.00. 6 inch Kodak Anastigmat in shutter \$5.00. Cash only, no trades. C. C. Applegate, 1859 Page St., San Francisco, Calif. Phone EVergreen 4859.

## OUTFITS WANTED

♦ Want vertical enlarger, prefer Elwood or similar type. Must be in good condition and a bargain. Write full details. Karl E. Hoffman, 1376 Hester Ave., San Jose, Calif.

## FOR SALE

Dunker Direct Positive Camera, Visualizer, Enlarger and Booth. W. SCHILLER & CO., 6 So. Broadway, St. Louis, Mo.

## LEICA FANS

Write for liberal trade-in allowance made on your equipment toward Model F Leica with a Summar F.2 lens.

### MINIATURE CAMERA SHOP

1600 Post St., San Francisco

Ph. WA 4484

## STUDIOS FOR SALE

♦ County seat town studio in heart of gold mining district; big pay rolls; no competition. Proprietor's time needed for mining operations, must sell at once for cash. Will consider part cash from responsible party. M. J. Pierce, Jackson Studio, Jackson, Calif.

## FOR SALE OR EXCHANGE

♦ Will trade outboard motor (Johnson Sea Horse 10, K45, class B. Release charger, underwater exhaust. Perfect condition, stored for two years, used only four hours. Worth \$185.) for accessories and Leica, Contax, or National Graflex and cash. William Maher, 1132 E. Montana St., Milwaukee, Wis.

♦ Will trade 4x5 Speed Graphic for 5x7 Speed Graphic; also 4x5 View for 5x7 View Camera. Frank Goddard, Moberly, Mo.

## POSITIONS WANTED

♦ Young man, operator and finisher. Eight years of reputable commercial and portrait studio experience. G. F. Torgeson, c/o Camera Craft, 703 Market St., San Francisco, Calif.

♦ Married man, eight years experience general reproduction work, Litho paper negs., and supersize photoprints. Go anywhere in U. S. N. D. Nash, 337a First Avenue, San Francisco, Calif. Phone BAyview 3982.

♦ Position wanted by an all around photographer including kodak finishing. Prefer Victoria or Vancouver or near by vicinity. Will work for a very reasonable salary. 12 years experience. Homer S. Wyatt, 919 Johnson St., Victoria, B. C., Canada.

MAKE MONEY SELLING new distinctive GREETING CARDS on which we reproduce interesting snapshots. Every camera owner wonderful prospect. If serious send 10c to help cover cost sending samples, details.

ZEHR STUDIO, A, Watertown, N. Y.

SAC, universal, visual focusing, reproduction and copying device for your LEICA. Portable, rigid and light. Extremely wide range. Accurately and well made. Priced reasonably and unconditionally guaranteed. At your dealer or directly from: SAC, 1600 California St., San Francisco, Calif.

GOOD ALLOWANCE for Firearms, Microscopes, Binoculars, and Celestial Telescopes, on any photographic equipment, motion picture or still, and Bausch & Lomb Spotting Scopes, and Binoculars. NATIONAL CAMERA EXCHANGE, 5 South Fifth Street, Minneapolis, Minn.



**C  
A  
M  
E  
R  
A**



Willard Van Dyke



**CRAFT**

REG. U. S. PAT. OFFICE

**NOVEMBER 1934  
VOL. XLI Number 11  
SAN FRANCISCO  
• CALIFORNIA •**

**PRICE 25c**



**In This Issue**

**PAPER NEGATIVES . . . . . Beauford B. Fisher**  
**PHOTOMICROGRAPHY . George H. Needham, F.R.M.S.**  
**MINIATURE TECHNIQUE . . E. C. Buxbaum, A. R. P. S.**  
**PRINT RETOUCHING . . . . .**

---

---

# PROJECTION CONTROL

By WILLIAM MORTENSEN



The first edition of this book, which covered four methods of controlling a photographic image during enlarging as well as other important material, has been sold out.

The second edition will be delayed as the number of questions that have been received concerning the further applications of Mr. Mortensen's principles of control make it necessary to enlarge the book to a considerable extent.

The new edition will be as complete as it is possible for us to make it in order to satisfy the reader on all questions.

This book will be put on sale during November or as soon before that time as the text and printing have been completed, and it will be an essential in the library of every photographic worker, amateur or professional.



CAMERA CRAFT PUBLISHING CO.

703 MARKET STREET

SAN FRANCISCO

CALIFORNIA

---

---

---



## *A Logical Meeting of* **Distinguished Photo-Craftsmen**

# *Agfa* **SUPERPAN ROLL FILM** welcomes its friendly co-worker **MAZDA PHOTOFLOOD**

**IT** is logical that Superpan Roll Film—having built a distinguished reputation for results under artificial light—should value the assistance of a light as brilliant and dependable as a Mazda Photoflood.

Agfa Superpan Roll Film is winning increasing favor with camera pictorialists for negatives under artificial light. It is six times as fast as ordinary film, two to three times as fast as Plenachrome. It is sensitive to all colors, including red. It gives exceptional gradation of finest detail protected by a special green anti-halation coating. *And it has a fine reputation for its keeping quality.*

The roll price has recently been reduced 5c, a further incentive to take advantage of its quality.

For assured results in night photography, choose Agfa Superpan Roll Film and its friendly co-worker, Mazda Photoflood.

**AGFA ANSCO CORPORATION**  
Binghamton, N. Y.



BOSTON, NEW YORK, CINCINNATI, CHICAGO, KANSAS CITY, SAN FRANCISCO, LOS ANGELES  
CANADA: AGFA ANSCO LIMITED, 204 KING STREET EAST, TORONTO, ONTARIO

Please mention Camera Craft when corresponding with Advertisers

# 8 SNAPSHOTS 8 PERFECT PICTURES



only the guidance of a  
*Photoscope*  
makes it possible

THE PHOTO ELECTRIC CELL SPECIALLY  
ADAPTED FOR EXPOSURE READING

When you make photos—don't guess.  
Use a PHOTOSCOPE, and be sure you're  
right.

Anywhere, anytime, under all conditions  
of light at any hour of the day—indoors  
or out—PHOTOSCOPE shows exactly  
how much exposure to give at any lens  
aperture.

Just point the PHOTOSCOPE at the  
scene—set your shutter at the indicated  
exposure . . . and shoot. You can't go  
wrong.

Price  
Complete **\$27.50**

See it demonstrated in our store,  
or send check or money order  
to Dept. CP, and we will ship  
it prepaid on 10 days' trial.  
Money back if not satisfied.

## WILLOUGHBYS

World's largest exclusive  
camera supply store

110 WEST 32nd ST., N. Y.

# COMING

How It Was Done. The series of articles under this title have proved distinctly popular and we are pleased to announce that a number of the most prominent pictorial photographers in the country are now working on papers which will appear in this general series. Among those whose articles will be presented in the near future are, H. F. Kells, Ira W. Martin, Thomas O. Scheckel and Dr. Max Thorek.

Forman Hanna has unquestionably established himself as one of the leading photographers of our time and we are therefore proud to present in the near future, his paper on *The Photography of the Nude*. Mr. Hanna by no means a "one subject" photographer. He has produced many extremely lovely landscapes, and his series of pictures of the Indians of the southwest are among the best things that have been made with the material. Of late years his outdoor figure studies, have been universally acclaimed wherever shown.

Edwin C. Buxbaum, A.R.P.S., whose name is already familiar to the readers of this magazine, has prepared a carefully worked out series of four articles on *Miniature Camera Technique* which we know will prove very helpful to all Minicams. The sections on films and filters are of especial value and approach the subjects from a new angle that is most instructive.

Cecil R. Nelin will tell just what you want to know in his very instructive article on *Night Photography*. He is a real night photography fan and his enthusiasm is evident in his article to the point of contagion.

P. H. Oelman is a successful illustrative photographer, an instructor in photography, and a prominent pictorialist. Several of his pictures have won awards in our advanced competition. He is convinced that the practice of still life photography is a most practical method for learning a great deal about both composition and lighting. His article on *Still Life Photography* will be written from that view point.

James N. Doolittle is well known to every reader of this magazine as the gentleman who writes those interesting and instructive reviews of the Los Angeles International Salon. We are happy to pass along the good news that he will write on the same subject again this year, and there will be plenty of pictures. Watch for this in either the January or February issue.

W. W. Davidson has worked out a very helpful article describing the advantages and the various applications of the single element in a symmetrical lens. The illustrations show very clearly just what may be accomplished by making use of the longer focal length that is obtained when using the single element. Many a photographic failure can be saved if these points are fully understood.

Lloyd J. Cartwright has designed an unusually efficient portable floodlight for amateur home portraiture. Full details for its construction will appear in an early issue.

B. W. Leroy has been engaged in some careful investigation of Infra-Red photography, and has some distinct valuable conclusions to impart. His article on *Modification of Development for Infra-Red Photography* will be of great interest to those who are working in this field. The beautiful quality of his illustrations will convince you that his advice is worth following.

Please mention Camera Craft when corresponding with Advertisers







*"Activities in the Steel Mills"*

*S. Sugano*

*From an exhibition of Manchurian photography  
originally collected by the South Manchurian  
Railway for showing at the Century of Progress.  
This reproduction by courtesy of the Japanese  
Camera Club of San Francisco.*

# The Paper Negative Process

Beauford B. Fisher

THE oldest negative-positive process known to photography is Fox Talbot's Calotype process, which was introduced in 1839. This process, made famous by that great Scotsman, David Octavius Hill, is a direct paper negative process. Through the years sporadic revivals of interest in the effects peculiar to paper negatives, have induced many photographic workers to attempt the mastery of the paper negative technique. Lack of any source of information has caused many of these to give it up in disgust and join their voices in a song of condemnation.

The writer, after repeated failure, finally discarded all the fragmentary knowledge gathered previously and began a series of experiments which have resulted in the technical procedure given here.

Paper negatives can be produced by three methods. First, by direct exposure in the camera as in the Calotype process; second, by making a paper positive, either contact or enlarged from the original negative and the paper negative therefrom; third, by employing a transparent positive, or diapositive, as an intermediate step. It is the writer's purpose in the present paper to describe the latter method, since in his opinion, it results in perfect retention of all the delicate tone gradations plus that indefinable charm inherent in D. O. Hill's pictures and all well executed prints from paper negatives.

The most desirable place to make a picture is before the lens, but as Mr. Frank R. Fraprie says in effect, the changing seasons, hours and weather conditions would make of one subject a series of pictures no two of which would be alike; and, the writer would add, not one of which would be entirely satisfactory to the photographer. Therefore it is justifiable to make slight changes and corrections.

Consequently, we are concerned primarily with the production of an original negative as nearly perfect in all respects as we are capable of making.

The diapositive or transparency which we must produce from this negative is the most difficult state of the entire procedure, and it is here

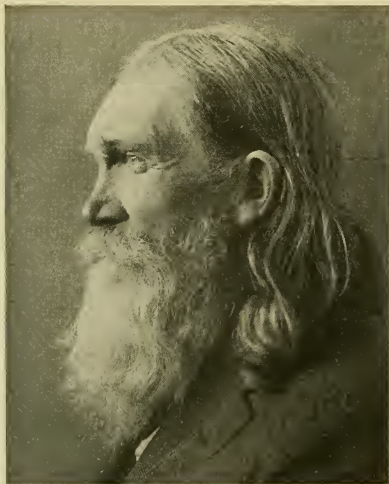


Fig. 1. Straight print from original negative—no manipulation.

that success or failure crowns our efforts. There seems to be a tendency for beginners to make a diapositive resembling a lantern slide. This is wrong both in theory and practice. It is necessary that we examine the theoretical aspects of the question in order to thoroughly understand this. We know that all photographic emulsions have a characteristic curve known as the Hurter and Driffield curve, of which only the straight line portion is capable of the truthful spacing and recording of a given series of densities or tones; both the under exposure and over exposure sections, resulting in a flattening or falsification of tone separation. Our diapositive, in order to accurately duplicate the tone spacing of the original negative, must carefully avoid both extremes. A perfect diapositive must have been exposed long enough to allow light to penetrate the highest highlight of the original negative and developed in a diluted developer only long enough to produce a soft yet brilliant result. Only then are the highlights well up on the straight line portion of the emulsion curve while the deepest shadows are transparent and avoid the over exposure portion of the curve. (The terms "highlight" and "shadow" refer throughout to a *positive image*.) The highlights of such a diapositive placed on a page of printed matter should give a pronounced grey tint to the underlying paper, while in most cases the shadows should be sufficiently transparent to permit the printed matter to show through. (See figure 6).

Fig. 6. Contact film positive from original negative — no modifications.

This cut is made to show as nearly as possible the appearance of the film positive when viewed by *transmitted* light.



After numerous experiments involving the testing of all types of emulsions available on a transparent base, the writer has finally adopted the "commercial" or "commercial ortho" cut film for all diapositives with the exception hereafter noted. (For those experimentally inclined, Eastman Duplicating film used with the filters designed for contrast control has possibilities in this connection.)

The diapositive may be made by contact or projection. If by the former method, it is advisable to use a ten watt lamp at a distance of at least five feet with no diffusion medium interposed. The resulting almost parallel rays of light produce the maximum sharpness. Tests should be made for the sake of economy until the precise exposure is determined. Development may be conducted with any clean and soft working formula. Those used by the writer are Von Hubl's Glycin as modified by Du Pont, Rodinal, and the Eastman D-61a formula.

There are times when our original negative may lack sufficient contrast. The modern high speed films have a low gamma infinity and with some flat lightings it is almost impossible to get sufficient contrast in the negative. For such exceptional original negatives we must have recourse to a process emulsion for our diapositive. The writer has had excellent results with Agfa Printon film. Here again we must avoid transparent highlights. Development in a very dilute soft working formula is recommended since the tendency is towards far too much contrast.

We next proceed to "work-up" the diapositive if this is deemed to be necessary. Control at this stage should be confined to the darkening

of distracting highlights. There is no necessity to build up shadows unless of very small size since that will be done on the paper negative. Neither should the etching knife be used unless the worker does not care whether the final print shows hand work or not.

In order that this paper may be complete, a further variation is here described. When extensive manipulation of the diapositive is desired, it should be made by projection to the full size of the final negative either on a glass plate or on a film which is later backed up with ground glass. The customary use of oil to increase transparency and lead, etc., to increase opacity may be indulged in to the hearts content on the ground surface with some assurance that the final result will be all that is desired.

The paper to be used for the final negative may be any kind of projection paper either single or double weight. The latter possesses one advantage in that it usually has less tendency to buckle and therefore makes it easier to secure contact when printing. However, single weight is generally used because of greater transparency. The best type is the semi-matt or similar surface. Rough papers are suitable for rather broad effects only. The writer possesses a predilection for the chloro-bromide papers both for negatives and positives and in consideration of all the above named factors has adopted Defender Veltura Veltex for most of his work. Where freedom from grain is a factor, nothing can excel the special negative stock made by Dassonville. Some workers like Eastman Kodaline paper. This stock is coated with a process type emulsion and therefore has a tendency to produce excessive contrast. It is of value whenever the additional contrast is desirable or in certain pictures of a patternistic or decorative type. The same advice given beginners in the choice of films or plates is applicable here. Select a paper and stick to it until you know exactly how to handle it under all conditions.

All the difficulties experienced by beginners in making the actual paper negative can be attributed to one fact. They forget that a *negative* must be judged by *transmitted* light. The writer has attempted to mechanize this stage as much as possible. Proceed as if making an ordinary projection print and make tests of exposure until *normal* development will produce a print looking very much like a good enlargement by *reflected light* (See figure 2). Then give from *two* to *four* times increase of exposure to the full sized paper intended for the negative and develop in the regular formula for at least fifty per cent greater time. (See figure 3). The writer's preference is for acid Amidol as follows:

Sodium Sulphite . . . . .	330 grs.
Amidol . . . . .	50 grs.
Citric acid . . . . .	10 grs.
Potassium Bromide . . . . .	10 grs.
Water to . . . . .	20 ozs.

Normal time: 2 minutes at 70° F.

For paper negatives: 3 minutes up at 70° F.

The result, viewed by *reflected* light will be somewhat similar to Figure 3, but by *transmitted* light will exhibit all the characteristics we expect of a good negative.

It has been frequently advocated that grain can be minimized by





Fig. 2. Showing appearance of the test exposure when printing the paper negative from the film positive.

reversing the diapositive and printing the paper negative through the back or paper base. This method involves a considerable loss of detail and brilliance as well as loss of sharpness due to irradiation within the paper. The writer has evolved a procedure which gives much better results. Make the exposure as directed above on the face of the paper. Then remove the diapositive from the projector and reverse the paper on the easel replacing it back side toward the lens. Give a very brief additional exposure. If properly timed, this will produce a general fog image at the base of the emulsion which will effectively even out the variations in paper density. This method used with the Dassonville paper will result in almost grainless prints.

When the paper negative is dry, make a proof print for further guidance. It is entirely possible that no further modification will be needed.

In preface to control of the paper negative, the writer wishes to call attention to the appearance of the negative at this point. Upon examination it will be found that there is a pronounced deposit of silver over the entire surface. We therefore can remove, by local reduction, considerable silver before cutting away all shadow detail. The best reducer is the old familiar "Farmers". This is known as a "cutting type" reducer, i.e., it increases contrasts. Why should we increase contrast in the shadows? The emulsion of all photographic printing paper has an H & D curve very similar to that of negative emulsions. But since the print must exhibit a full range of tones from black to white the worker is forced to use both the underexposure and overexposure portions of the papers emulsion curve. The shadows thus lie in the *overexposure* section of the printing papers emulsion curve and the result is naturally

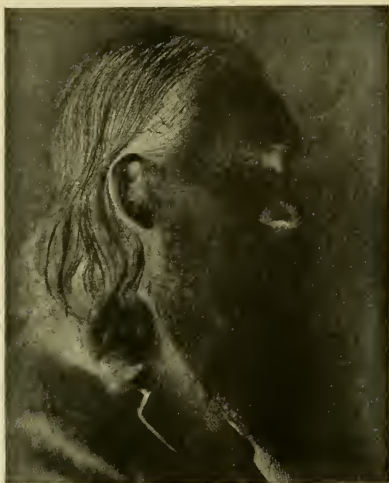


Fig. 3. Paper negative before exercise of any control.

Compare with Fig. 2 to note difference in depth of tone between test exposure and properly made paper negative, by *reflected* light.

a flattening or blocking of detail. Ergo, we use a cutting type reducer to increase shadow contrast and, as a result, gain in depth and richness, yet retain full detail.

The local reducing operation should be carried out on a plate glass illuminated from below and inclined toward the worker. The support should be placed in a sink or large tray for obvious reasons. Near the worker's left hand should be a large tray or dish of fresh water containing a wad of absorbent cotton. Near the right hand place a graduate containing the Farmer's reducer mixed for use and a small conical shaped wad of wet cotton. The thoroughly resoaked paper negative is then placed on the support with the edge upon which work is to start parallel to the nearer and lower edge of the glass. The excess water on the negative is then mopped off with the large wad of cotton held in the left hand and squeezed dry. Then dip the point of the conical wad of cotton in the reducer and squeeze out excess. Apply it carefully to those portions to be reduced and observe the action closely. Have the left hand always ready to flood the work with fresh water and do not hesitate to ease it. The action can always be continued but there is not much that can be done if it is allowed to go too far. Turn the negative as the successive sides are treated with the reducer. After completion of the local reduction the negative must again be thoroughly washed. Before drying, a treatment in one of the commercial preparations designed for the purpose of flattening prints is advisable as it will facilitate the process of obtaining contact when printing. A good substitute is

Glycerine 1 oz.

Water 30 to 50 ozs.

As we have seen, the highlights as well as the shadows are flattened due to the use of both the underexposure and overexposure por-

Fig. 5. Finished paper negative. Showing effect of local chemical reduction on face of paper negative viewed by *reflected* light.

Compare with Fig. 3 to notice extent of manipulations.



tions of the papers H & D curve. In the case of the highlights, this fact becomes a decided virtue if the process is being employed as a control process. The worker, by retouching on the back of the paper negative, has the opportunity of increasing the brilliance of those highlights essential to the composition while leaving all others severely alone. This can very conveniently be done by placing the negative, back side up, on the printing machine. An ordinary *soft* lead pencil can be used for fine



Fig. 5a. Showing retouching on back of paper negative accomplished by use of Sun Rise Stove Polish.

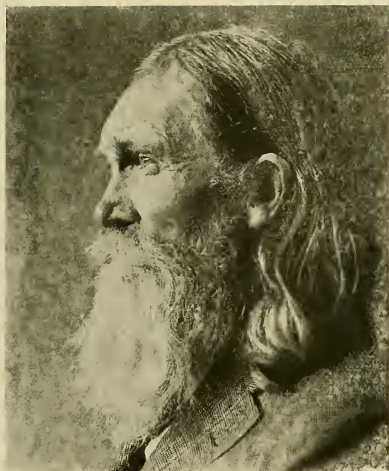
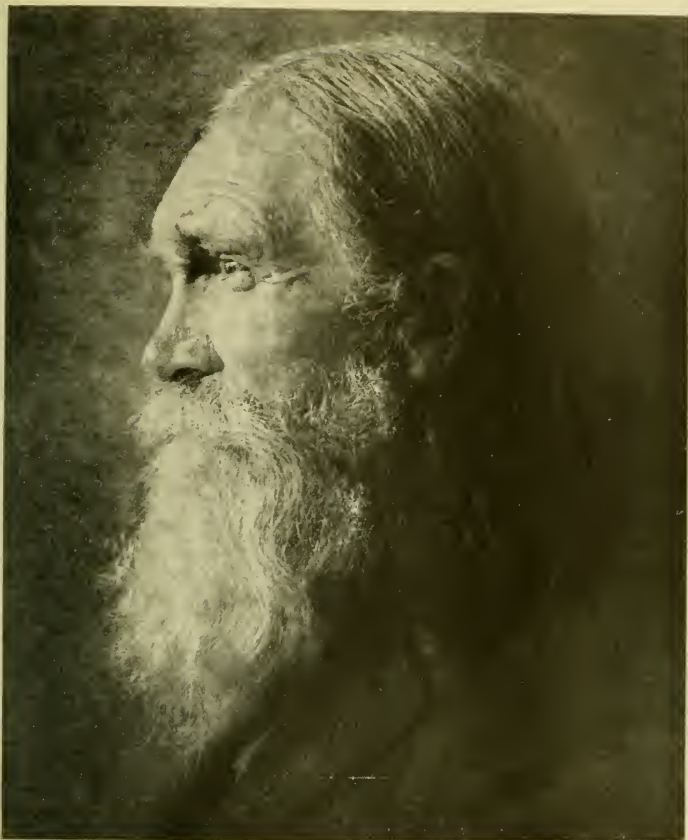


Fig. 4. Straight print from paper negative before exercise of any control. (Shown Fig. 3).

Compare with Fig. 1 to notice accurate duplication of original and with final print to see extent of control exercised.

work, being careful to avoid heavy pressure which would cause the paper fibers to be crushed. Broad areas are best treated with crayon sauce, pastel, powdered graphite, or, as in the writer's own work, with "Rising Sun" stove polish. This material has been in use for many years in professional circles for a great variety of purposes. The writer's own cake has been in constant use for more than fourteen years, and will probably last twenty more. The method consists in twisting bits of cotton around a pointed match stick and rubbing the resultant stump on the cake of Rising Sun until the cotton has taken up sufficient material; then working the stump over a piece of waste paper until an even tone is deposited. It is then ready for use on the paper negative. Work carefully and judge the progress by repeatedly turning the negative over and viewing it by transmitted light.

A word about printing the final and worked up paper negative. Some workers are in the habit of applying concoctions of an oily nature to the back of the negative in order to increase its transparency. This practice is to be condemned, first, because it is almost impossible to prevent the oil from subsequently reaching the face of the negative and thence to the face of the print with disastrous result and second, because it increases the graininess of the final print. Such treatment is unnecessary if the worker adopts chloro-bromide papers for the final prints. It is the writer's opinion that the modern slow chloro-bromide papers, Indiatone, Veltura, and Opal, are in every way the equal of the finest contact chloride papers with the addition of sufficient speed to permit of reasonable exposures. Use either the makers developer formula or the acid Amidol given above. Acid Amidol is capable of giving extensive variation in print contrast. Softness is obtained by use of a low factor of four or five or by dilution or both, and contrast by use of a



*"The Old Pioneer"*

*Beauford B. Fisher*

Final print from controlled Paper Negative

high factor and increased time of development. The writer has at times used a factor of fifteen with a time of appearance of one minute naturally resulting in a total development time of fifteen minutes. The developing tray must be shielded from the safelight in such cases to avoid fog.

The beginner is advised from the bottom of the writer's heart to work absolutely "straight" at first and until the print from the paper negative is a faithful duplication of a straight print from the original negative. The use of control in this as in all control processes involves an understanding of the basic laws of art and draughtsmanship. And use of control on an imperfect paper negative can only result in a monstrosity.



# Low, Medium, and High Power Photomicrography

George H. Needham, F. R. M. S.

A PREVIOUS article in the February, 1934, issue of *Camera Craft* described the low power work which could be accomplished without a microscope and now it will be the endeavor of the author to guide those who would like to continue the subject with the microscope in the set-up at higher magnifications. Once you have taken up this fascinating and instructive branch of photography, new vistas will open up to you as you progress.

Practically all the information given in the article referred to above applies to photomicrography at any power, particularly the sections on the type of camera, filters, plates and films, exposure, developing and printing. The special technique required when a microscope is used and the instrument and lenses to use to secure the best results will now be discussed in detail.

## Micro-Cameras

For the beginner excellent results can be secured with the student type of microscope fitted with x10 and x40 objectives and x6 and x10 eyepieces, giving a magnification range from x60 to x400, with a simple micro-camera set-up shown in Figure 1, providing the instructions given in this and the previous article are closely adhered to. The Blow fly's tongue photomicrograph illustrated was taken with this arrangement, using a cheap substage lamp and Wratten "C", blue-violet filter. The professional micro-cameras are fitted with a side focussing eyepiece, which is very convenient for quick focussing on the specimen and for instantaneous photography of living organisms. These attachments serve up to x500, have the decided advantage of quickness, and for routine records are unsurpassed. They have the disadvantage of a fixed bellows extension, so one has to depend on optical combinations only to secure the magnification desired. The type preferred by the author is the one taking a regular  $3\frac{1}{4}" \times 4\frac{1}{4}"$  Graflex plate or film holder and having a 10" bellows extension, hence giving the same magnification on the plate

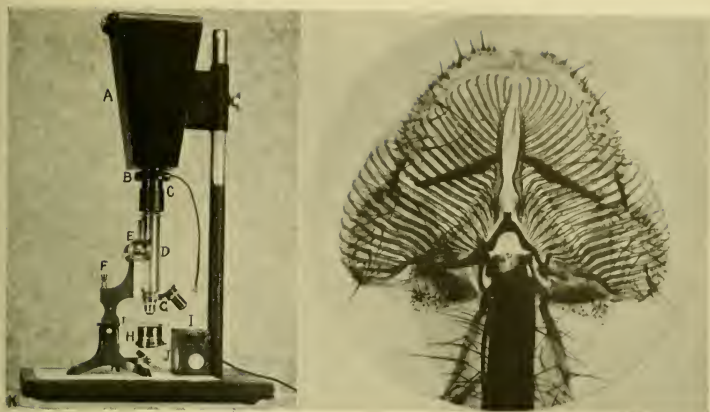


Fig. 1 (Left) Simple Micro-camera set-up for Low and Medium Powers

- A—Fixed 10" bellows camera,  $3\frac{1}{4}" \times 4\frac{1}{4}"$  Graflex back, sliding on heavy metal rod and clamping.  
 B—Camera shutter, time and instantaneous speeds.  
 C—Dull black light-tight connection.  
 D—Student Microscope. E—Coarse adjustment. F—Fine adjustment.  
 G—Revolving nosepiece carrying low and medium power objectives.  
 H—Simple sleeve substage carrying Abbe condenser, iris diaphragm and stop carrier.  
 I—110 volt substage lamp.  
 J—Wratten "C", blue-violet, gelatin filter mounted between glass.  
 K—Sponge rubber mat to absorb vibration.

#### (Right) Tongue of Blow-fly. x37

Taken with set-up on left. 1" Swift achromatic objective, x5 Huyghenian eyepiece, Abbe condenser—bottom lens only, Wratten "C" filter. Eastman Process film, exposure 3 minutes.

as seen through the microscope, rather than the type taking a smaller plate. These micro-cameras are attached in three different ways to the microscope. These are listed below in order of preference:

1. Camera sliding on heavy steel rod, not attached to the microscope, and light-tight connection between camera and microscope.
2. Camera screwing into body tube of microscope.
3. Camera fitting into draw-tube of microscope and clamping.

The miniature camera photomicrographic attachments have the advantages of concentrating the light intensity on the film and cutting the cost per photomicrograph to a minimum, but the disadvantage of small size, requiring enlargements to be made to bring out the detail.

## Optical Bench

For the finest and most satisfying work the horizontal optical bench is supreme, giving the best results from low to powers as high as x3,000 on the plate. The bench shown in Figure 2 can be assembled at much less cost than if purchased as a complete unit from one of the optical companies. As can be seen, it has great flexibility. It consists of a two meter Zeiss 60° triangular bar, (2" sides), bolted to a seven foot, well-seasoned, mahogany board, 10" wide and 1¼" thick. Metal washers are used between the bar and the board to level the bar its entire length. Additional washers can be used in case the board warps at any time in the future, but the one illustrated is three years old and the bar is just as level as when first clamped. No cleats underneath have been found necessary to prevent warping. A much cheaper and quite efficient bar could be made from a 6 foot length of angle iron, with short portions cut from a similar piece for sliders to carry the various parts.

The bench carries a lamp at one end and a 5"x7" camera with bellows extending to three feet at the other end. In between the two is placed a microscope set horizontally on a sliding platform and with means to clamp the base securely. The microscope is your standard optical line with the lamp adjustable vertically and the camera adjustable both front and back horizontally as well as vertically. Two pieces of metal tubing, one sliding in the other, and attached to the front of the camera and the microscope, form a light-tight connection. Between the microscope and the lamp various accessories are carried on sliders, such as cooling cells, extra condensing lenses, and filter holder. All slides can be clamped at any point along the bar. The bench is placed on three sponge rubber mats on a heavy table, the mats absorbing any ordinary vibration. The entire outfit vibrates as a whole, hence nothing more elaborate than sponge rubber is required unless the bench is situated near heavy traffic or in a building where heavy machinery is running. Much better than a table would be a section of steel shelving bolted to steel uprights at such a height as would give comfortable working and with a lower section to keep extra sliders, plate holders, etc. Should space compel a smaller bench, a 5 to 6 ft. one is satisfactory.

The above described optical bench is really a universal one, as with it the finest micro-projection on a screen is possible, as the maximum amount of light passes through the optical system, there being no mirror or prism to absorb part of the light. Also it can be easily transposed to a first-class enlarger with enlarging condensers mounted on a block of wood to straddle the bar, or for enlarging or reducing negatives for lantern slides. It is not suited for the photography of thick aqueous mounts, where the stage of the microscope has to be kept horizontal, a vertical type with the camera mounted over the microscope being then required.

## Microscope

The student type of microscope as now made on the optical bench system with very rigid parts, coarse and fine adjustments, a stage where the object slide is either held by clips or moved more precisely with a

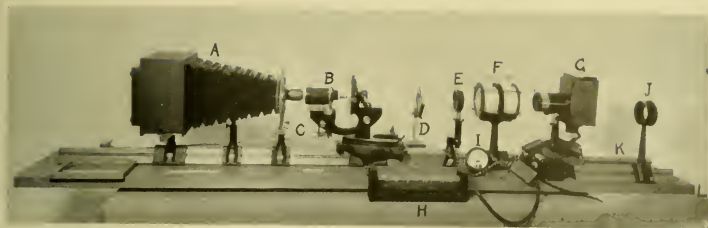


Fig. 2

- A—Camera, 3 ft. bellows, 5"x7" back. B—Zeiss Photomicrographic Microscope.
- C—Remote focussing device attached to fine adjustment screw.
- D—Filter holder. E—Extra centering condensing lens. F—Water cooling cells for lamp.
- G—18 ampere, 6 volt, ribbon filament lamp fitted with aspheric condenser and iris diaphragm.
- H—Copper-wound variable rheostat to reduce amperage down to 13.
- I—Ammeter reading to 25 amperes. J—Iris diaphragm on spare bar. K—Two meter long triangular bar.
- L—Mahogany board, 7 ft. long, 10" wide, 1¼" thick, supported on three sponge rubber mats.

mechanical stage, and a rack and pinion substage carrying a condenser to focus the light source accurately on the specimen, is excellent for all ordinary work. A built-in mechanical stage to search the slide systematically is a great advantage, and if possible should be on the microscope you purchase. A better model with centering screws to accurately center your substage condenser with each objective is a necessity for fine work. The best advice is to purchase the finest microscope you can afford with the minimum of optical equipment, the latter can be added to as means permit. Never buy a second-hand instrument without having an experienced microscopist examine and test it, as the instrument may have back-lash or "shake" in one or more of the fittings, making it unsuitable for photomicrography. A new instrument from one of the large optical firms gives you the best value for your money.

## Optics

*The objective* is the most important part of the microscope system. The best types give very crisp images, even at high magnifications. It is not how much a lens magnifies that is important, but how much it will resolve or separate finely marked structure. In other words, the angular

aperture of an objective (total angle of the light rays taken in from a point in the specimen), or as formulated by Ernst Abbe and now universally used—the numerical aperture or N.A. The higher the N.A. of an optical system, the finer the structure the lens will resolve. Objectives using visible light have resolved markings as fine as 110,000 to the inch. Unfortunately, the higher the N.A., the less the depth of focus, hence a good rule to follow is to use the lowest numerical aperture objective which will clearly show the structure you wish to photograph. All this is quite different from photographic optics, where speed or intensity of image on the plate is of great importance.

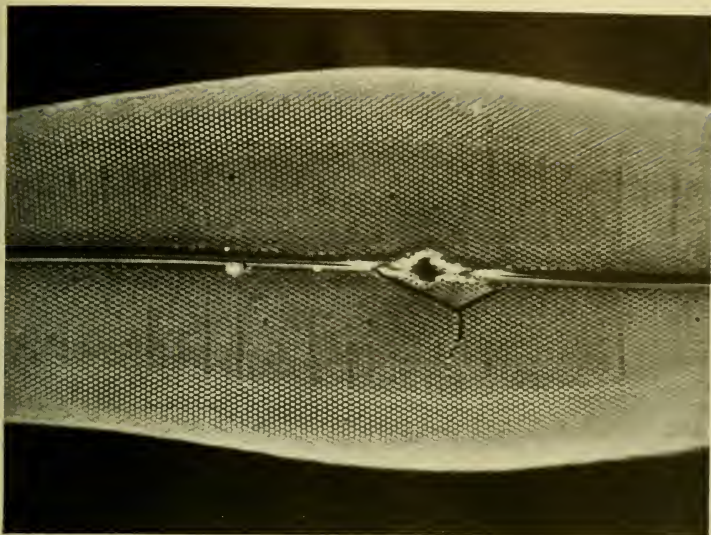
Excellent work can be done with the modern achromatic objectives magnifying  $\times 10$ ,  $\times 40$  and  $\times 90$ . The latter lens is an oil immersion one, where cedar oil has to be used between the front lens and the glass covering the object. Green or blue filters help greatly in securing sharp images with these objectives. For the finest results, however, the fluorite or apochromatic lenses give the best and sharpest negatives, particularly when no color filter is used. The  $\times 20$  apochromatic objective cannot be recommended too highly. It has a wonderful reserve of resolution and approaches the closest of any of the objectives to the perfect lens.

The *EYEPIECE* to be used with the objective is quite important also. For achromatic objectives as high as  $\times 20$  use the ordinary Huyghenian eyepieces of  $\times 6$  to  $\times 10$ . The higher eyepieces of this series are not satisfactory. For  $\times 40$  or higher achromatic lenses, all fluorite and all apochromats use the Compensating eyepieces of  $\times 5$  to  $\times 20$ . The  $\times 15$  Compensating eyepiece is excellent to use with the high power achromats. If a field is required flat to the edge, such as in photographing blood films and tissue sections, use the special projection eyepieces made by Zeiss or Bausch & Lomb called Homals or Ampliplan respectively. Usually the photomicrographer saves buying these expensive special eyepieces by extending the camera bellows sufficiently until only the center part of the field of view of the microscope fills the plate.

Every microscope worthy of the name must have a *CONDENSER* below the stage to condense the light on the object. The condenser usually fitted to microscopes is the one devised by Abbe and consists of two or three lenses. It is not corrected, but will serve for low or medium powers, but for high power work a corrected achromatic condenser is necessary. With the  $\times 10$  and  $\times 20$  objectives use the condenser without the top lens, which will increase the focal length and give a larger image of the light source to fill the field of view of these objectives. For higher powers use the complete condenser, while with the oil immersion lens the substage condenser should be used immersed, i.e., with a thin film of cedar oil between the top lens and the under surface of the slide, in order to get the best possible results.

It is essential that the condenser be centered so that its optical axis be in line with that of the objective. To do this direct your light on the mirror and in turn direct the light up through the condenser to the specimen. Focus on the specimen with the  $\times 10$  objective and a low power eyepiece, close the iris diaphragm of the substage as far as it will go and rack the condenser down until an image of the closed iris is seen in the field





Diatom, *Pleurosigma angulatum*. Test Object. x1400

*Zeiss "X", 3 mm., 0.85 N.A., apochromatic objective, x15 Compensating eyepiece, Cardioid dark field condenser, 18 ampere ribbon filament lamp, Wratten "C" filter. Wratten "M" plate, exposure 5 minutes. Projection print on "Novobrom", extra vigorous.*

of view. If it is not in the center of the field, bring it into the center by the centering screws, or if no centering screws are fitted to your microscope, rotate the condenser in its flange until the diaphragm is closest to being central. In a new instrument all the objectives on the revolving nosepiece will be adjusted to the same center, but in an old instrument slight adjustments will have to be made for each objective.

For dark field work up to a x20 objective a black central stop,  $\frac{5}{8}$ " diameter, and fitted in the stop carrier below the substage condenser, with the iris diaphragm of substage wide open and the condenser flush with the stage, gives excellent results. With higher power objectives than this the special dark field condenser will have to be used. The Paraboloid type is the best one for general use. The Cardioid, Watson "Cassegrain", or Zeiss "Spot-ring", are for special dark-field work. All are reflecting condensers, must be oiled to the under surface of the side with cedar oil, used with a powerful light source, and be accurately centered to the x10 objective. Usually, with the Paraboloid, a minute circle is engraved in the center of the front lens to facilitate centering, but if not, adjust with centering screws of substage until the spot of light as seen in the center of the field is perfectly circular and perfectly even in

intensity, at the same time racking the condenser slightly up or down until the spot of light is of the smallest diameter.

## **Illumination**

The 6 volt, 18 ampere, A.C., ribbon filament lamp as made by Bausch & Lomb is the best lamp for all general work. One can make a #16 copper wire-string variable rheostat to reduce the amperage down to 13, which greatly adds to the value of your lamp, particularly for visual observations before taking your photomicrograph and for conserving the life of the expensive bulb. A 6 volt, 18 ampere, coil filament lamp interchanges with the ribbon filament type, is very reasonable in price, and for photomicrographic work is nearly as good, although occasionally it will be found that the coil type will not give quite even illumination on the plate. A 100 watt or higher projection "Monoplane" Mazda mounted in a light-tight housing with condensing lens is quite satisfactory, but when critical methods of illumination are applied, you may have to use ground glass to make the illumination even, which should be avoided. The lamps mentioned serve admirably for the vast majority of photomicrographical work, occasionally an arc lamp has to be resorted to, particularly when oblique light is used with the highest powers, when the use of any other lamp of much less intrinsic brilliancy would mean too long an exposure. Use one cooling cell (F. Fig. 2) filled with boiled, distilled water with the above mentioned lamps, except for the arc, where two are necessary.

Whichever lamp is used, it must be fitted with an iris diaphragm mounted as close as possible to the condensing lens. Its rim should be graduated so that the opening for each particular set-up may be recorded for future reference. Unless the lamp has a diaphragm, and it is surprising how many lamps put out by the optical companies are not provided with this absolutely required essential, you cannot apply Kohler's Method of critical illumination, universally used by all the best photomicrographers. This method is very simple. The enlarged image of the light source is focussed sharply on the iris of the substage condenser by moving lamp condenser back and forth. Then the closed iris of the lamp is imaged in the field of the microscope by racking the substage condenser slightly up or down from its position nearly flush with the stage. Then open up the lamp iris **JUST SUFFICIENTLY** to cover the photographic plate. Then glare and flooding will be reduced to a minimum and sharp and clear photomicrographs secured.

The following is a brief summary of how one would take a photomicrograph:

1. Do all the preliminaries, such as centering the substage condenser, finding the specimen or field you wish to photograph, deciding which objective and eyepiece will give you the best results, and one of the most important adjustments: setting the aperture diaphragm of the substage by removing the eyepiece and looking down the tube at the back lens of the objective. The correct procedure is to adjust the diaphragm according to the type of specimen you are photographing, as follows:



Fig. 3

Full cone

$\frac{3}{4}$  cone

$\frac{2}{3}$  cone

$\frac{1}{2}$  cone

$\frac{1}{3}$  cone

( $\frac{3}{4}$  cone =  $\frac{1}{4}$  diameter of back lens cut into by substage condenser diaphragm).

*Stained Objects.* Full cone (substage diaphragm just coming in to edge of back lens) to  $\frac{2}{3}$ rd cone. (See figure 3.)

*Objects considerable contrast.* (Such as insect preparations).  $\frac{3}{4}$  to  $\frac{1}{2}$  cone.

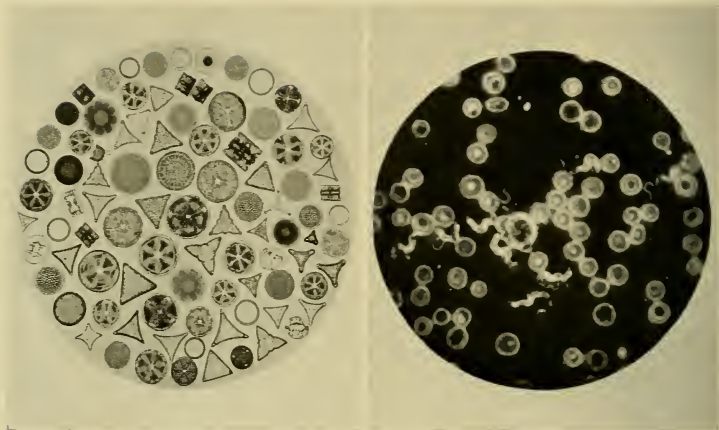
*Objects little contrast.* (Living organisms, diatoms).  $\frac{1}{2}$  to  $\frac{1}{3}$  cone.

*Objects of minimum contrast.* (Emulsions, molds).  $\frac{1}{4}$  cone.

The above is just a rough guide, but much better than adjusting the diaphragm blindly while looking at the specimen, as 99 out of a 100 microscopists do now. The back lens of the objective should always be filled with even light before one can get the best out of it, and then the substage diaphragm closed the MINIMUM amount to secure good contrast without glare or flooding. No good microscopist likes to use  $\frac{1}{4}$  cones, but sometimes an object has such little contrast from the background that small cones have to be used. At all times the photomicrographer has to be on his guard against closing the substage diaphragm down too much so that diffraction effects, such as obliteration of detail or concentric rings around the specimen, are produced in the photograph. The maximum opening of the diaphragm for each particular objective should be when it is just cutting into the back lens.

2. Decide which color filter or filters should be used to bring out best the structure you wish to resolve. This is done visually, as what looks good to the eye usually records well on the plate. Remember in stained specimens extreme contrast is secured by using a filter complementary to the stain, e.g., with a red stain use a green filter. Usually a filter is used which transmits light not completely absorbed by the stain, so that the specimen does not appear as black and hence shows more detail. In the case of a double stained section, a compromise, of course, has to be made. For instance, the Wratten "G" filter, a strong yellow, has been found excellent for photographing histological sections stained with haematoxylin and eosin. The Wratten "B", green, "C", blue-violet, and "H", blue, are invaluable to secure the maximum resolution out of your objectives. The newer "X-1", green, should be used when photographing colored objects with panchromatic plates, and this filter also gives very good results when photographing contrasty objects on a dark field.

3. By observing the degree of contrast of the specimen, decide which kind of plate to use. A few hints are given below:



100 Diatoms from Simbirsk, Russia. x50 (Left)

*Leitz 16 mm. achromatic objective x7 Holoscopic Eyepiece, Abbe condenser—bottom lens only, Wratten "C" filter. Wratten Panchromatic plate, 6 volt, 18 ampere, ribbon filament lamp, exposure 18 seconds. Contact print, Azo glossy.*

**Trypanosoma gambiense, African Sleeping Sickness, Protozoa in Blood,  
stained specimen. x550 (Right)**

*Reichert 1/12a flourite objective, N. A. 1.30, x10 Compensating eyepiece, Watson "Cassegrain" dark field condenser, 18 ampere ribbon filament lamp, no filter. Wratten "M" plate, exposure 3 minutes. Contact print on Azo #1, glossy.*

*For objects of slight contrast, such as unstained specimens, ordinary Process or Wratten "M" Panchromatic. This latter plate is specially made by Eastman for photomicrography. It has a fine grain and is unequalled for general work.*

*For objects of medium contrast and stained specimens the Wratten "M" plate gives very fine results. This plate is also best for objects illuminated by reflected light from above.*

*For objects of extreme contrast Wratten Panchromatic usually best, particularly for objects shown with dark ground illumination.*

4. All of the above is done on the laboratory table and then the camera is swung into position over the microscope and lowered into place if the vertical type is used, or the microscope is made horizontal and clamped to the photomicrographic bench.

5. With a short bellows re-adjust the coarse or fine adjustments of the microscope, depending upon the magnification being used, until

the image is fairly sharp upon the ground glass, and then extend the bellows so that just the field you desire to photograph is included on the size plate you are using. Then reduce iris diaphragm of the lamp to just cover the plate.

6. Then substitute a clear glass with a fine cross marked in the center, making sure that the cross-mark side is closest to the microscope, and focus finally with the fine adjustment until the image is as sharp as possible when a  $\times 3$  or  $\times 6$  focussing glass is used, going over the entire surface to see that it is sharp. This should be done irrespective whether you are magnifying  $\times 3$  or  $\times 3,000$ . This is the most important point to observe in all photomicrography, as failure to follow the procedure here given results in the many photomicrographs seen illustrating books and papers which are not sharp, particularly those taken at high powers.

7. Then expose a trial plate, giving a time decided upon by viewing the brightness of the image on the ground glass and from past experience by referring to a record book, which is always kept by those who do serious work.

8. Develop the plate at once without touching the set-up. If it is much under- or over-exposed, expose another plate. Do not waste your time with reduction or intensification, plates are too cheap. A correctly exposed plate will give brilliant and fine prints while one not correctly exposed will never equal it, no matter what grade of paper you may use. For developer use the two solution Metol-hydroquinone developer given in the previous low power article or the contrast one recommended for the plates or films you may be using.

By far the best and practically the only booklet on the subject for the beginner is the one published by the Eastman Kodak Company. A more pretentious work and the best published is the English book "Handbook of Photomicrography" by Hind and Randles.

The author would be very glad to help any reader of *Camera Craft* who takes up this important and most fascinating subject.

*At intervals in the future Mr. Needham will discuss specific photomicrographic problems, in detail. Readers who are confronted with problems, the analysis of which would be of general interest to those studying Photomicrography, are invited to call our attention to them as possible material for the papers mentioned above.—ED.*



# Print Retouching For Minicams

Raymond B. Collerd

**W**HILE this discussion will, no doubt, be of most interest to the user of a miniature camera the problems are faced by many a user of cameras far larger.

There have been many times during the past years when I, as a user of a Leica, have obtained negatives that were all that could be desired for quality. They have been a joy to the eye and with great enthusiasm I have set to work enlarging them only to find that the finished print showed lines, details and blemishes that were distinctly unlovely. Nor were all the faults minute details on the films themselves:—dust, cursed dust, will at times and regardless of the care used leave its tell-tale imprint where least wanted. Many of my prints used to be discarded or tried again and at times I have, to tell the truth, “cussed” the little camera heartily and dreamed of the day when I would become renegade in the minicam ranks and own and use exclusively a  $3\frac{1}{4} \times 4\frac{1}{4}$  or 4x5 reflecting camera.

But all idea of change of camera size came to abrupt end when an inspiration received during a course under P. Douglas Anderson, A.R.P.S., started a new line of experimentation,—that of retouching prints. It has now become an interesting part of my photographic work: a new indoor sport, if you will, with untold possibilities offering themselves as skill is obtained.

The tools necessary are few,—the skill in using them being of most importance. For the removal of wires which appear as white against black, dust marks, hair lines, air bubble spots, etc., a very fine brush should be procured and the better the quality the happier you will be. I have found that a “Triple SSS., 2/0 series B” sable is about ideal. It should cost about forty cents. The ink is a stick of Chinese or India ink, black, and is sufficient to last several life-times. For grinding the ink a small piece of ground glass, a 2"x2" lantern slide cover glass or a small, fine-textured porcelain tile serve admirably, or if you desire, the thumb nail of the left hand is quite as good as anything.

For pencils the Wolff Carbon Drawing Pencils are recommended. The Grade H serves admirably alone but other degrees of hardness may be obtained to suit the tastes of the individual user. I keep a grade B

and a BB at hand though they are seldom used. A long, fine point is best for most retouching work. Both the pencil and the brush have their uses and it is only by experience that one can arrive at the choice between them for the work at hand.

An etching knife is a most important part of the equipment. There are numerous knives obtainable in the photo supply houses but I prefer one made from a small corn-knife made in Germany by F. Brangs which should be obtainable in a good cutlery store. The ends (it is a double ended affair about 5" long and all steel) are cut off at an angle of about 45°. The side away from the user when held normally in the right hand is beveled and ground to a sharp scraping edge about 5/16" long which is admirable for the purposes of print work. A fine Arkansas Oil stone for keeping the edge at all times in the most perfect condition possible should be provided.

Here the attention is called to a most excellent article which appeared in the October, 1933 issue of *Camera Craft* entitled "Touching Up the Print", by G. H. S. Harding, which describes the methods of eliminating or toning down objectionable highlights, building up shadows, or working in dark spots where needed with the use of lithographic ink and small Bromoil brush or cotton swab. Mr. Harding has covered his subject thoroughly and I will not attempt to discuss it here.

I have tried many papers in my print retouching work for if etching, particularly, is to be resorted to the paper is a most important consideration. I have used rough and smooth, white and buff, by this manufacturer and that, meeting with success here and there. While undoubtedly skill is 9 points of the result I feel that in Dassonville "Charcoal Black" I have found the material best suited to *etching* work. I prefer grades "B" and "E", white and buff respectively and having a beautiful, slightly rough texture that shows careful etching scarcely at all even when held up to strong light.

Now for the use of the simple tools. For the removal of white lines with the brush grind a little of the ink on the glass, tile or thumbnail as you will, using saliva as a medium. Then moisten the brush in the mouth drawing the hairs to a fine point with the lips, and pick up a little of the ink by giving the brush a twist in the fingers the while drawing it away from the point. Test for color on the margin of the print or on a similar piece of paper, and remember that it is easier to build up a desired tone than it is to reduce it. A stippling action, very gently done, is frequently most efficient. I use saliva exclusively as a medium moistening the brush as necessary in the mouth for if it is done properly little ink is ever on the brush and not the slightest trace of taste is distinguishable. Saliva seems to have a binding power that holds ink to the print even when a waxing solution is used upon completion of retouching. The work of retouching with a brush requires a steady hand and eye and not a little patience if perfect results are to be obtained. It is quite fascinating to watch spots and lines disappear and so blend with the details of the print itself as to be absolutely invisible. In all cases, watch the shadows carefully and carry them normally through the retouched area.

The pencil, with its long fine point, comes in particularly when dust marks are to be removed. The work is done very gingerly, usually without lifting the point and using a trembling motion although a delicate stippling or a minute cross-hatching are valuable where the character of the image, the texture of the paper, or area to be filled-in permit. When the pencil is applied an occasional rub with the finger or a fine kid or chamoix stomp will serve to blend. Build up slowly, don't try to make every stroke or movement tell, and as in the case of the brush, watch, the course of shadows with great care. In the case of telegraph wires passing through trees; if the various vagaries of light and shade are filled in carefully the wires will disappear with astonishing rapidity. Here above all, do not use a straight stroke as this is a sure tell-tale that work has been done. Many salon prints that I have seen have lost much of their interest in my eyes because of such carelessness in touching-out.

To me, the etching process is most interesting, calling as it does for a nice delicacy of stroke and ease of action. Above all it is in etching that the worker must avoid strain. The muscles must be relaxed. I have mentioned that the blade must be kept at all times in perfect shape, true in line and bevel and exceedingly sharp. The knife is held in the fingers much as is a pencil but unlike a pencil only the faintest of grips is used, —just enough to keep the knife from slipping out of the grasp. The motion of etching, or *stroke* if you will, is commonly from upper right to lower left in direction, and seldom is it longer than  $\frac{1}{4}$  inch and is usually considerably less. The knife is invariably lifted from the paper on each return stroke and the angle of the cutting edge with the paper will vary, of course, with the area to be reduced. It is only by patient practice that the correct angle and stroke for the work in hand may be learned. Here it should be noted that the print should be turned to fit the stroke found most efficient by the etcher and not the stroke fitted to the print. It is when the stroke is varied from that which comes most naturally and efficiently that difficulties arise.

Whatever paper is used burnishing is to be avoided over areas etched. If the print is waxed the marks of the knife are frequently practically eradicated. Burnishing results in a glossed area that is easily recognized. There is no substitute for careful, delicate, unrushed work be it with etching knife, brush or pencil.

It is in portraiture that the full value of print retouching in minicam work is realized. It will be found by those who care to undertake this work that with a little experience their portraits may be greatly improved or even saved through the print retouching process.

Herewith is shown an example of print retouching using the brush, the pencil and the etching knife. It is a section of a portrait selected solely because of the variety of work which could be done. The original prints are on Charcoal Black "B". At this writing it is difficult to say how much of the work done will be in evidence after they have gone through the photo-engraving process for reproduction. However, I will call attention to the various points.

Figure 1 is the unretouched print, figure 2 the print upon which some work was done. The originals are from a Leica negative on fine-



Fig. 1



Fig. 2

grain Plenachrome, made under artificial light indoors.

Above the left eye of the subject appears a white line extending from the forehead upward through the hair into the background. This was removed in fig. 2 with the brush and ink.

On the subject's left cheek appear two moles made more prominent by the film used. In figure 2 these have been etched out, no evidence whatever of the use of the knife being visible. Two other spots on the nose have also been etched out as well as several more which probably do not show up in the reproduction.

Two almost vertical wrinkles in the neck have been reduced by etching and the whites of the eyes have been intensified.

The dark droop on the right side of the mouth in figure 1 has been etched out.

A scar under the right side of the subject's lower lip has been practically eliminated by etching and the dark edge of the lower lip has been reduced in the same manner.

The highlights on the lower lip have been either eliminated or reduced by use of the Grade H Carbon pencil.

The triangular area between the hair, face and drawn up knees has been somewhat lightened by etching.

Most noticeable of all in the reproduction will be the elimination of many of the polka dots on the dress. Some were removed with pencil, some with brush and ink and some with a combination of both. The results seem to the eye to be about the same. The two rows of dots above

the thumb have been reduced in tone, some with the brush and some with pencil.

Let me advise minicamists and others who wish to try new fields in photographic work and who have not yet done so to take up this interesting work of print retouching. The equipment is exceedingly low in cost, the work interesting and who knows but what a valuable print may be saved through the application of this process.

Since writing the above a new product has come upon the market and has been called to the writers attention. For a matter of three or four weeks it has been used in all cases where the etching knife was formerly used with the greatest success in every case.

The product is called Etchadine. It consists of a set of four solutions, namely: Control Medium, Etchadine, Thinner and Neutralizer. Enough of each solution is included in the set to enable even the most ardent worker to correct hundreds of prints.

It has been found particularly valuable in the case of portraits made with a miniature camera where wrinkles are to be softened, lines removed, pin-hole dots to be eradicated, etc. Telegraph poles may be removed and such other features of prints as are undesirable.

For the worker with the larger camera, Etchadine may be used on the negative with equally good results, if desired.

As to the manner of using, it is most simple. The print is gone over for a few moments with a wad of cotton moistened with the Control Medium. After the emulsion has become penetrated thereby the area to be reduced is carefully gone over with the Etchadine which is then rubbed off again with the cotton on which is the Control Medium. It is recommended that a *drop* of the Etchadine be put in a watch crystal and a *drop* of the thinner be added and mixed with the spotting brush. The brush is then slightly wiped on the side of the crystal and the solution applied with care to the area to be reduced or "etched". If the area is of some size it is recommended that a wad of cotton be used by twisting it on a round tooth-pick.

Particularly at first the reducing solution should be applied gingerly and removed again almost immediately as the character of emulsions vary and consequently the rapidity of action varies as well. On most Agfa Brovira and Eastman P.M.C.s it was found that Etchadine could be efficiently used full strength if allowed to act for a second or two only, whereas with Dassonville Charcoal Black the full strength solution reduced completely in the briefest possible time and the use of an undiluted solution was quite impossible. One batch of Brovira Porcelain was found to have characteristics quite similar so the user of this medium is cautioned to proceed carefully using a diluted solution for a starter at least and even then allowing but a short period for action.

As in all retouching, the use of this solution requires some skill and practice, and it is recommended that the user allow himself an evening or two and several trial prints before attacking a real problem.

Perhaps the greatest feature of the use of this set is the fact that the finished print surface shows not the slightest sign of its use. *This is even true of its use on glossy papers.* Following the use of the solutions





*"Aconium Nobile"*

*Earl G. Baird*

4th San Diego Salon

the print is fixed in an acid hypo bath, rewashed and dried in the usual way. Since this is done it is necessary to leave the spotting with ink or pencil to the last at which time the over use of the reducer may be corrected as well if this is necessary.

One more interesting use of these solutions is possible,—the bleaching out of large areas such as backgrounds. In this case the emulsion must be perfectly dry. A small amount of the Etchadine, thinned preferably, is applied over the area to be bleached using a small tuft of cotton sparingly moistened. Following this more may be applied. Either partial or complete bleaching may be obtained, the degree of reduction being directly proportional to the intensity of the stain absorbed by the

emulsion. When the color desired is obtained the surface of the print is wiped off with a clean, dry cloth or cotton. Should any brown stain have reached a portion of the print where bleaching is not desired the fourth solution, Neutralizer, is applied with cotton twisted on a toothpick or sharpened match. The user is cautioned to use this solution very sparingly, and to take clean cotton frequently as needed.

The bleaching itself is accomplished by submerging the print in water for several minutes keeping it completely covered. Following this the print is placed in an acid hypo bath, washed, dried, etc., in the usual manner.

It might be mentioned that the solutions may also be used for re-development. This is outside the sphere of print retouching as covered herein but instructions for the use of Etchadine in this manner accompany the solutions when purchased.

There are a few additional uses of Etchadine covered in the instruction sheets which accompany it which will interest users of small and large cameras as well. It seems to the writer after a few weeks intensive use that the makers of this product have something which will meet with the hearty approval of those who wish to make the very most out of their prints and who are faced with the problem of etching in their print retouching.

## Miniature Camera Technique

Edwin C. Buxbaum, A. R. P. S.

**T**HE miniature camera demands a technique all its own. The user of any large camera who decides to use a miniature camera finds this out very soon. There is a difference in handling a Graflex and a Leica. The tiny negatives cannot be handled with the fingers, the negatives cannot be retouched, and contact prints are not usually large enough for practical purposes. Developing and enlarging soon bring on other difficulties. Grain appears to bother the miniaturist and dust becomes a menace to every projection print. The chemistry of fine grain developers must be studied and a careful technique of handling the small films acquired. The realization soon comes that the handling of the miniature camera is an art and a science combined. Even before any picture is taken, there is an art in selecting the film to use.

There are five main groups into which practically all films can be classified. These five groups are as follows, first, the Slow and Color Blind group; second, Orthochromatic films; third, Panchromatic films; fourth, Fine Grain films; and fifth, Special films. Each of these groups has special characteristics. The first of these groups is the

#### SLOW AND COLOR BLIND FILM GROUP

<i>Film</i>	<i>Scheiner</i>	<i>Weston</i>	<i>H.&amp;D.</i>
Eastman Positive . .	8	1	33
Du Pont Positive . .	6	1/2	14
Defender Commercial .	17	8	290
Gaevert Regular . .	17	8	290
Selo Regular . .	17	8	290

The slow and color blind film group includes films which are very useful despite their slow speed and color blindness. Process work and copying demand such slow films for good work. Positive film is cheap and costs much less than negative film. It costs about \$1.00 for about 100 feet where the usual negative film costs \$4.00. Positive film can be used for making positives or for any copying. Even in certain types of landscape work, it is very convenient. Its color blindness can even be an advantage if skillfully used. The so called "regular" emulsions are rather color blind films not being sensitive to reds in any degree and only slightly to yellow and green. They can be used for ordinary snapshots and record pictures however. Not every subject demands speed or color sensitivity.

The second group of films is the Orthochromatic Film group. Films included under this classification are—

<i>Film</i>	<i>Scheiner</i>	<i>Weston</i>	<i>H.&amp;D.</i>
Eastman Kodak N.C. .	18	10	370
Eastman Verichrome .	20	16	600
Du Pont Orthochromatic .	17	8	290
Agfa Plenachrome . .	20	16	600
Agfa Cine Ext. Rapid .	19	12	471
Agfa Standard Film . .	17	8	290
Agfa Memo Film . .	20	16	600
Defender Commer. Ortho. .	19	12	471
Gaevert Ortho. Sensima. .	19	12	471
Gaevert Super Sensima. .	20	16	600
Gaevert Express . .	20	16	600
Perutz Leica Special . .	17	8	290
Perutz Persenso . .	22	24	972
Ilford Commer. Ortho. .	16	6	228
Voigtlander Illustra . .	22	24	972
Zeiss Ikon Ortho. Ultra .	21	20	762
Hauff Leica . .	21	20	762

Orthochromatic emulsions are those which are sensitive to blue, yellow, and green. They are excellent films for landscape work. Recent developments in emulsion chemistry have enabled the manufacturers to put out these orthochromatic emulsions in speeds that are almost as fast as the high speed panchromatic emulsions. It must be stated that the latitude of a fast orthochromatic film is not equal to that of a fast pan-

chromatic film although the "chrome" type of films which are adapted orthochromatic emulsions have greater latitude. On the other hand, the orthochromatic emulsions have a very fine grain which is a decided attraction. Again, while the new orthochromatic emulsions can be obtained in very fast form, this applies to daylight only as they are not as fast in artificial light, due to their lack of sensitivity to the red. Altogether they are an extremely useful group that should be employed by more amateurs.

The third group of films include the Panchromatic films which are more widely employed than any other group. Among this group may be found the following films—

#### PANCHROMATIC FILMS

<i>Film</i>	<i>Scheiner</i>	<i>Weston</i>	<i>H.&amp;D.</i>
Eastman Supersens. Pan.	. 22	24	972
Eastman Commenc. Pan.	. 20	16	600
Eastman Regular Pan.	. 18	10	370
Du Pont Regular Pan.	. 19	12	471
Du Pont Special Pan.	. 20	16	600
Du Pont Superior Pan.	. 22	24	972
Eastman Portrait Pan.	. 20	16	600
Agfa Standard Cine Pan.	. 20	16	600
Agfa Super Cine Pan.	. 22	24	972
Agfa Com. Pan. Cut Film	. 21	20	762
Agfa Superpan. Cut Film	. 22	24	972
Defender Pan. X-Fast	. 22	24	972
Defender Pan. Regular	. 20	16	600
Ilford Regular Pan.	. 19	12	471
Ilford Hypersensitive Pan.	. 22	24	972

There is no denying that the speed of the panchromatic emulsions and the high color sensitivity have made this group one of the most popular. Its greatest fault is its tendency towards coarse grain. This, however, can be overcome to a large degree with care in selecting and using a fine grain developer. Individual films vary somewhat in certain characteristics. It seems that the Eastman supersensitive is more contrasty than the Du Pont film corresponding to it. And there are other differences that the amateur will discover for himself. Even the thickness of the film bases will vary in the different makes of films. For the careful worker, the panchromatic emulsions present the greatest possibilities if handled properly. They are of immense use to the miniature camera enthusiast.

#### FINE GRAIN FILM GROUP

<i>Film</i>	<i>Scheiner</i>	<i>Weston</i>	<i>H.&amp;D.</i>
Eastman Panatomic	. 18	10	370
Agfa Fine Grain Plen.	. 20	16	600
Mimosa Fine Grain	. 21	20	762
Perutz Fine Grain	. 19	12	471
Zeiss-Ikon Fine Grain	. 19	12	471
Schleussner Fine Grain	. 21	20	762
Westendorf Col. Fine Gr.	. 21	20	762



*"Monterey Fisherman"*

*Sibyl Anikeef*

1st Salon of Pure Photography

The fine grain film group represents the special efforts of film manufacturers for the miniature camera users. They are excellent films to use because of the fine grain which permits very large prints to be made without grain. In general, they are good orthochromatic emulsions combined with a special sensitivity for the yellow orange but are not extremely sensitive to red as are the panchromatic emulsions. Panatomic, however has full color sensitivity and constitutes an exception to the above statement. For all around work, they are excellent. Many of the manufacturers of these films have special formulas for their films to which it is well to adhere. From the experience of various amateurs, it seems that the Panatomic film gives better results with the D76 formula



than with the recommended D72. While these films cost somewhat more, their superior fine grain characteristics make them worth while.

The fifth and last group consists of—

SPECIALS FILMS			
<i>Film</i>	<i>Scheiner</i>	<i>Weston</i>	<i>H.&amp;D.</i>
Defender Portrait High Green Sensitive . . .	22	24	972
Du Pont $\frac{1}{4}$ Speed (Micromatic) . . .	16	6	228
Du Pont Infra D. . .	17	8	290
Filmcolor . . .	special ratings		
Du Pont Du Pac . . .	special ratings		

The special group of films takes in various films for different uses. Du Pont Infra D is an excellent film for producing strange effects as well as for aerial work. It can be used in some pictorial photography for producing unusual contrasts and effects. In aerial photography, it has the valuable property of cutting through haze. Defender makes a special portrait film called High Green Sensitive which is finding increased use. In this category might be included the Filmcolor film which is of the Lumiere autochrome type and produces natural color positives in one development which includes a reversal step. Cheaper in price but more troublesome to handle is the Du Pac film put out by Du Pont. This is a double film from which two positives are made and then dyed, one blue green and one red. The two are combined with careful registration and give good color rendition.

Of course, many films which are classified in one of the above groups could be very easily be placed in another. The Du Pont Quarter speed film which is placed under the special films might be placed under the slow films because of its relatively slow speed or it might be placed under the panchromatic group because of its good all-around color sensitivity. The Perutz and Mimosa orthochromatic emulsions might be easily placed under the Fine Grain group and so on. The above grouping is merely a convenient arbitrary arrangement.

When the film has been chosen, there are still many pitfalls before the film is taken out of the camera. The art of releasing the shutter is one of the factors in miniature photography which is often neglected. The right touch is one in which there is no jerkiness. Instead of a rapid compression, there should be a slow pressing movement that releases the shutter easily and naturally without jarring. The best of lenses cannot record detail if the camera is jerked during exposure. To avoid any such results, it is best to set the shutter at a speed of one fortieth of a second or less. This will usually provide against any movement of the camera. Many of us believe that we can give exposures as low as one fifth of a second holding the camera in the hand and perhaps this is possible with large negatives from which projection prints of two or three diameters are made. But, in the miniature enlargement where the rule is probably more like fifteen diameters, all movement, however slight, shows up markedly. For any exposures slower than one twentieth of a second, a tripod is a necessity. Even the tripod must be considered. Some

of them are so flimsy that even when the shutter is tripped with a cable released, they show some initial movement at the moment of release.

Keeping the lens clean is of course an elementary rule. Nevertheless, many of us forget to clean the back element which often accumulates slight particles of grease, dirt and fingerprints. Dust is the enemy of the miniature camera. If he is careless, the amateur may spoil his films by having large scratches on his negatives because he has wound his films too tightly. Whenever I hear the squawk of a film being wound too tightly, I think of the deprecations that will follow after the film is developed. Do not leave your film in the camera too long. Sometimes, from being in the camera too long, the film develops a curl with the emulsion side outwards which may be confusing in the darkroom. For the rabid enthusiast, as most of us are, this will not be a problem. We all like to develop our films the same day.

## Cinema Section

Edited by

William A. Palmer

## Musical Scores For Projection

It was a fact, well known to professionals during the old silent picture days, that a picture with a good musical score could "get by" even though it were not very good, while the same picture without musical accompaniment might be a complete "flop". It was quite common for producers to test the merits of a new picture by having it shown "cold" as they called it, without musical accompaniment. If the picture gave a good impression to the audience under such conditions, the picture was sure to be a success.

Since music was proved to be such a valuable aid to professional pictures, there is no reason why the amateur movie maker, who is now the foremost exponent of silent films, should handicap his films by showing them "cold".

A musical background for home mov-

ies, played by means of phonograph records, furnishes the best and most convenient method of obtaining the proper emotional response from the audience. Through the use of recorded discs one has at his command the best in music, played by the best orchestras in the world. What more could one ask?

In addition to the very desirable control of emotional response that music can give, its accompaniment to pictures can serve as the means of concentrating the attention of the audience on the picture by stopping "small talk" and general conversational buzz among the spectators. Our home audiences don't mean to be impolite, but too often the darkening of the room and the hum of the projector seem to be the cue for neighborly inquiries about little Marjorie's whooping

cough or the number of miles per gallon that the new car gets.

Special equipment for running phonograph record with home movies is not necessary nor desirable. The ordinary electrical phonograph with a single turntable is entirely satisfactory, although it is convenient to have the turntable and loudspeaker separated, loudspeaker at the screen, turntable at the projector. One should have an electric light to illuminate the turntable without shining too much out into the room or reaching the screen. The volume control should be handy to the fingers of the "conductor" and should be arranged so that it will fade the sound completely away.

It is really a very simple matter to choose the proper musical score for any home movie. Good classical and romantic music should be used and one should concentrate on one type of instrumentation—either all orchestral recordings or all organ numbers. Popular music, especially that containing vocal parts, it entirely unsuited.

In selecting the records one must not try to fit the music too exactly to each individual scene, but should choose compositions that fit the mood of the picture in general. Attempts to synchronize the music too exactly are not apt to be successful without a great deal of rehearsal. In most cases one can plan to play each record completely rather than to chop it off in the middle somewhere. If one has the volume control always at hand, he can increase the volume when the music is

very suitable to the action, as will happen in many cases when the music has been chosen carefully. When the music is not so suitable, he can turn the volume down so that the music does not seem so important.

The mechanics of operating the phonograph records along with the projected picture is not difficult. One must be ready with the volume control to make sure that the click of the needle as it enters the record groove, or the scratch of the needle at the end of the record, does not reproduce in the loudspeaker. When using the one turntable, the end of each record is brought down to rather a low volume and then at the very end faded out completely. The next record is put in place quickly by lifting the finished record without stopping the turntable and then dropping the new one in place over the center pin. The needle is then placed at the start of the groove and the volume control manipulated to fade in the sound. By this fade-in fade-out method of changing records, it is found that most people in the audience are not aware of the fact that there is any pause for record changes.

It is not necessary to have a large library of recordings to make out very presentable scores for pictures. Often one can use a single composition for a picture of a reel's length by repeating certain portions of the record. There is no need to fear that one will get tired of repetition of the "classics". Good music is never tiresome.

## The Third Dimension

As one investigates and considers the possibilities of stereoscopic moving pictures, he comes to the inevitable conclusion: True stereoscopic moving pictures

are impractical, for their achievement necessitates too great an expenditure of time, money and inconvenience in proportion to the advantages that would be ob-

tained from being able to present a picture in true relief. However, due to some of the experiments in pseudo-stereoscopic effects there has come a very interesting finding which the amateur can use to very good advantage.

There have been many attempts to make stereoscopic or three-dimensional motion pictures in past years. The two eyed, hooded stereoscope that mother and father used for entertainment in the front parlor of a Sunday afternoon, as they looked at views of Niagara Falls or comic illustrations entitled "Fun in a Pie Pantry", has served for the inspiration for a great many inventors attempts at putting roundness and the third dimension to moving pictures.

The principle of the stereoscope is merely to reproduce the conditions which obtain when we see an object with our eyes. In our normal sight we see an object with our right eye from one position and the same object with our left eye from a slightly different position. The two images from the two eyes, separated a distance of some three inches, are combined in the brain. Because we get a different perspective from each eye, the brain puts together these images in such a way that we can judge distances and the shape and depth of objects. Now, in order to create the same effect in the brain either by still photographs or by motion pictures it is necessary to have conditions similar to those which occur in normal vision. These conditions are that one picture must be presented to the right eye and another to the left eye. Furthermore, the right eye must not see the picture that the left eye is to see and the left eye must not see the picture of the right eye. Consequently, it is impossible to get true stereoscopic relief unless we have some means of presenting one picture to the right eye and the right eye alone, and another to the left eye and the left eye alone. The only way to do this in moving pictures, when the two pictures must be thrown on a screen before a large audience, is to have some sort of spectacle or eyeglass directly over the eyes of each member of the audience.

There have been several inventions aimed to provide true stereoscopic relief with the aid of special spectacles. One in particular, which was brought out as a novelty in theaters a few years ago, made use of color separation filters placed in a cardboard "lorgnette" to allow each eye to see a different picture. Going in to see one of these novelty pictures, the theatergoer was handed a pair of the colored spectacles, the lenses of which were made of colored celluloid. Over the right eye was placed a red gelatin, over the left eye a blue. The two images for the two eyes were thrown on the screen simultaneously from a specially prepared film in which the image for the right eye was tinted blue and that for the left eye in red. When viewed without the "glasses", the scene was a confusion of blue and red images, but when viewed with the aid of the colored filters, the picture appeared in startling relief.

Such an arrangement could not be used for ordinary commercial photoplay work because the use of the two different colors for the two eyes leads to eye strain and the stereoscopic relief was not entirely satisfactory because the images seemed to stand out from the screen too much, being apparently in the middle of the audience somewhere. Furthermore, one can appreciate the difficulty of having to supply each individual theatergoer with a pair of glasses at each performance or the impossibility of having people own special glasses for attending the movies. Certainly many would have difficulty remembering to bring their glasses.

All other attempts at third dimensional movies have centered around some means of fooling the eye into thinking it sees a true stereoscopic picture. Numerous, varied, and intricate have been the schemes to accomplish this fooling of the eyes. Some have been merely a superimposition of the two images, on the screen taken from different viewpoints. The result is no stereoscopic effect, but only blurred double images. Other ideas have been elaborate systems using many images taken from many different positions, but these have been entirely impractical

because of the tremendous expense involved and the great amount of equipment necessary.

Years ago it was noted that when an object was rotated about a vertical axis in front of a moving picture camera, the picture then taken and projected on the screen gave a very pronounced appearance of roundness. If, for instance, a bowl of flowers were rotated on a turntable of some sort in front of the camera, the projected scene would show the flowers with such realism and roundness that one would be tempted to reach out to grasp the image. Seeing this phenomenon in certain scenes, many were prompted to try and achieve the effect all the time by having the camera, which was photographing a certain scene, mounted on a semi-circular track so that the camera could be continually rotated about the object being photographed. The effect on the screen of course was that the object rotated in front of the camera as in the case of the bowl of flowers.

As simple as this seems, it is really the best, most practical method of achieving a stereoscopic effect that moving picture engineering has been able to develop to date. So simple and interesting is the method that any amateur ought to find it worthwhile to spend a little film in making some stereoscopic movies. To have the subject continually rotate before you throughout a long film would become decidedly tiresome in spite of the stereoscopic relief, but for a short novelty it would be decidedly worth while. Particularly beautiful are the effects which can be obtained in Kodacolor.

Let us see how we would go about taking a few stereoscopic scenes. Close-ups of flowers, always an excellent Kodacolor subject, we will say is our objective. We arrange a bouquet of the colorful blooms in a vase and set the vase on a revolving stand of some sort. A phonograph turntable can be pressed into service as a revolving stand or better yet perhaps one of the old fashioned "lazy susans" which years ago used to

rest on the dining room table might be resurrected from some second hand store. Or, lacking either of these make-shifts, a revolving table can be constructed very easily. The flowers are placed in the sun light and a background of black velvet is put up. This black background is particularly good to show off the flowers to the best advantage.

The camera is set up, loaded with Kodacolor film, and as the picture is taken, the turntable, upon which the vase of flowers rests, is slowly rotated. That's all there is to it, and yet wait and see, when the film comes back from the processing station, what a beautiful effect we get. The bouquet of flowers will rotate slowly on the screen. But more than that, they will apparently stand out from the screen having all the true roundness and color of the original.

This sort of thing is not restricted to still life subjects which can be rotated easily on a small stand. Very often, in the photography of persons, the effect can be obtained by the use of "dolly" shots in which the camera, on a movable platform or carriage is caused to rotate about the subject in such a manner that the subject remains in the center of the camera field. Likewise a picture taken from an airplane circling about a group of buildings will cause the buildings to stand out from the flat terrain in a remarkable manner. The trick is well worth a trial.

### Questions and Answers

**Question:** If films have been allowed to become dry and brittle, will humidifying bring back their original flexibility?

**Answer:** Humidifying will put back the escaped moisture in the gelatin coating of the film, but will not restore the solvent of the celluloid base. Therefore a film which has once become very dry can never be completely restored. Films are too often allowed to dry out when they are left on the hundred foot spools, since there are no hundred foot humidors cans. The remedy is to keep all small rolls in a large box which can have a moistened sponge placed in it.



# Monthly Competition

## One Month To Go

With only one more competition remaining before the awarding of the Club Trophy Cups for 1934, the winner in two of the four divisions is still very much in doubt. Everything depends upon the quality of prints sent in for the December contest. Remember that these must reach our office by November 4th. Don't forget to put your club's name on the back of your prints. We know that several clubs have missed an opportunity to score because of this oversight. For instance we are quite sure that Mr. Hodges, first prize winner in the Advanced Class this month is a club member. It would obviously be unfair to give club credit unless this is indicated on the print, for this would place those whom we do not happen to know as club members at a disadvantage.

## Scoring for 1935 Trophies Begins with January Competition

The Club Trophy features of these competitions will be carried on in 1935 under the same plan as for 1934, although if anyone has any suggestions regarding modification of the rules they will be gratefully received and given careful consideration. A complete statement of all rules will appear in our December issue so that all may be fully informed.

There is every indication that the club features of the competition will be much more widely supported in the coming year. About a dozen clubs that have not yet taken part have stated their intention of competing in 1935, so we look forward to a most interesting and lively contest. Don't forget that prints for the January competition must reach this office on or before December 4th, 1934.

## Contributing Clubs

California Camera Club  
Camera Club of Ottawa  
Cleveland Y.M.C.A. Camera Club  
Fort Dearborn Camera Club  
Fresno Camera Club  
Golden Gate Leica Club  
Hartford County Camera Club  
Japanese Camera Club

Miniature Camera Club of Philadelphia  
Monterey Peninsula Camera Club  
Photographic Society of San Francisco  
Pictorial Photographers of America  
Saginaw Camera Club  
San Jose Camera Club  
Schenectady Photographic Society  
Utica Camera Club

## Scoring for Club Trophy Cups

The following won points for their clubs in the Advanced Class: Johan Helders, F.R.P.S., for the Camera Club of Ottawa; Dr. Max Thorek, and Edward Entin, for the Fort Dearborn Camera Club. John Muller's award cannot be credited to the Pictorial Photographers of America as he has previously earned the maximum of 15 points permitted an individual. The following won points for their clubs in the Amateur Class: Victor T. Yamakawa, for the Japanese Camera Club; H. C. Benedict and Augusta Zachary, for the Photographic Society of San Francisco.

## Standing of Clubs

### Large Clubs Advanced Class

Camera Club of Ottawa .....	24
Fort Dearborn Camera Club .....	21
Pictorial Photographers of America ..	15
Photographic Soc. of San Francisco ..	13
California Camera Club .....	10
Los Angeles Camera Club .....	7
Telephone C.C. of Manhattan .....	4
Utica Camera Club .....	1

### Small Clubs Advanced Class

Japanese Camera Club .....	16
Monterey Peninsula Camera Club ....	3

### Large Clubs Amateur Class

Photographic Soc. of San Francisco ..	50
Schenectady Photographic Society ...	20
California Camera Club ... ..	18
Golden Gate Leica Club .....	10
Camera Club of Ottawa .....	4

### Small Clubs Amateur Class

Cleveland Y.M.C.A. Camera Club ....	6
Saginaw Camera Club .....	4
Japanese Camera Club .....	3
San Jose Camera Club .....	2



*"Peasant Woman"*

*J. K. Hodges*

**First Award—Advanced Class**

■ Mr. Hodges has succeeded in bringing out, quite strongly, the qualities suggested by his title "Peasant Woman", and he has done this with a deftness and simplicity that enhances the total effect. The picture seems to us to have much of the charming qualities that one ordinarily associates with a well done miniature, and Mr. Hodges apparently appreciates this subtle relation of size to picture qualities, for his original print is smaller than our reproduction.

We believe that this picture is likely to cause a number of our readers to ask the question; is it legitimate to completely disassociate a head from reality as is done in this case. The general argument against such a treatment would probably be based on the claim that it is not photographic, that the camera does not see things in this manner. A moments thought however will show that by draping the figure with black velvet, selecting the proper background, and keeping the exposure short, it is quite possible to obtain this effect by straight photographic procedure, without any after manipulation of the negative. A more specific argument might grant that the first objection does not hold but go on to claim that it is not artistically proper to present

(Continued on Page 554)

**Second Award  
Advanced Class**

■ Again we find a strong, simple composition in Mr. Helder's, "After the Storm". There is much beauty in the lovely sweeping line that leads up to the well placed accent of the tree trunks, and one should not overlook the usefulness of the vertical shadows at the left in balancing the composition.

It is a question as to whether a more literal photographic rendering, with better definition and more evident snow texture, would destroy the romantic appeal of this picture. A completely sharp rendering in the spirit of "pure" photography would, of course, do this. The "purist" would intentionally avoid a romantic interpretation of the scene, and his result would be an entirely different picture from the one we are considering. That does not concern us here. What we wish to know is whether or not it is possible to maintain the spirit of this picture and at the same time attain a more photographic rendering of the scene. For our part we feel that a more literal rendering is not only possible but that it would actually enhance the beauty of the picture.

Data:  $2\frac{1}{4} \times 3\frac{1}{4}$ " Thornton-Pickard Ruby DeLuxe; Cooke Anastigmat;  $1/25$ th sec. at F:8; print on P.M.C. #7, in M.Q.



**"After the Storm"**

**Johan Helder, F.R.P.S.**



**"Snow Blossoms"**

**John Muller**

ture more easily if it were printed reversed as regards left and right. We have nothing but the highest praise for the beautiful print quality which Mr. Muller consistently maintains.

Data:  $4 \times 5$ " Graflex; 7" Zeiss;  $1/10$ th sec. at F:22, with K-2 filter, on Defender X.F. Pan., in M.Q. Tank; print on Defender Velour Black J.

**Third Award  
Advanced Class**

■ Here is a subject that is well suited to the particular virtues of the camera. No other medium could bring out the essential qualities of this scene to any comparable degree. Mr. Muller has cleverly extracted the last ounce of picture interest from his subject by making full use of back lighting, and one should not overlook the vibrant vitality, the heightening of effect, that this lighting brings to the picture. As a composition the picture, leaves something to be desired. There does not seem to be enough tie-up between the two groups of trees at either side of the print, with the result that there is a weak area running from the upper right corner diagonally down through the print. This condition is aggravated by the concentration of material in the upper left. Because of the eye's predilection for reading from left to right, the dark mass in the lower left becomes something of a hurdle. We believe, therefore, that the eye would move into the picture more easily if it were printed reversed as regards left and right. We have nothing but the highest praise for the beautiful print quality which Mr. Muller consistently maintains.

Fourth Award  
Advanced Class



**"By the Sweat of Thy Brow"**  
Dr. Max Thorek, F.R.P.S.

important problem that each photographer must ultimately decide for himself. We feel that this picture would be improved if it were not so broadly drawn.

Data: 8x10" Studio camera; 18" Verito;  $\frac{1}{2}$  sec. at F:8 by Halldorson Studio light, on E.K. Par Speed Portrait, in Glycin; Mimosa C.B. 5, in M.Q., from paper negative.

Fifth Award  
Advanced Class

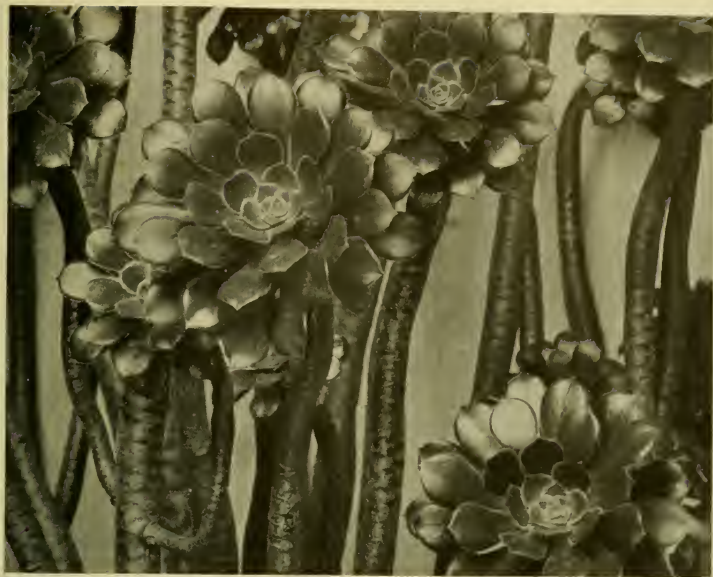
■ Mr. Entin has been quite successful in capturing the atmospheric quality expressed in his title, and this quality brings a certain quiet charm to the picture that is its most redeeming feature. Notice that, disregarding the buildings, the picture is made up of four large even toned masses. The large expanse of water, the tree areas on either side, and the sky. It is practically impossible to avoid monotony with such large areas of almost unbroken tone, especially so when these areas are almost equal in weight. This condition is further aggravated, in the present instance, by the fact that the subject must be shown with a short scale of tones. We would suggest a trimming that would remove a little more than one third of the total width of the print from the left side, and enough from the bottom so that the edge of the print would cut into the reflections of the tall buildings. This will place the group of buildings in a strong position in the upper left third of the print as trimmed, and will introduce some variation in the relationship of the masses.



**"Misty Day"**

Edward Entin

Data:  $\frac{1}{25}$ th sec., on Gevaert Ortho; print on E.K. Opal Q.



First Award—Amateur Class

*H. C. Benedict*

■ One of the most interesting features of these competitions from our own standpoint is the opportunity they afford for watching the growth and improvement of the contributors. Mr. Benedict has made tremendous strides in the past few months and we confidently expect that he will be winning awards in the Advanced Class before long. The present print impresses us as one of the most interesting things we have had in the Amateur Class for some time. It is exceptionally well seen, faultlessly composed, and well done from the technical standpoint. A really mature piece of work. There is room for a slight improvement in definition, for we cannot get too much sharpness in a picture of this type, and we would advise printing on a glossy paper in order to get the maximum of luminosity. The composition is perfectly able to stand by itself and there are no loose ends that demand the use of a black border as a crutch to sustain such a weakness, but we nevertheless believe that a black border would help to accent the unity of the design. Notice the importance of ordered variation, or variety without confusion in this composition. The largest blossom easily dominates, and is well placed to constitute the principal interest. The blossoms providing the minor accents are all varied as to size and shape by careful trimming and selection of viewpoint, and serve further by breaking the vertical lines so that none of them run through the print without interruption. The same interesting variety is found in the spacing of the vertical stems and notice that in no case do these assume an awkward relationship with the edges of the print.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$ " Graflex; 15" Cooke Telephoto; 8 secs. at F:45, in shade, on E.K. Portrait Pan in D-7; E.K. Portrait Proofing, in Amidol.



**Second Award  
Amateur Class**



**"Vacation Days"**  
Augusta Zachary

Data:  $3\frac{3}{4} \times 4\frac{1}{4}$ " Auto-Graflex;  $7\frac{1}{2}$ " Kodak Anastigmat;  $1/25$  sec. at F:16, in bright sunlight, 11 A.M., with K-2 filter; Agfa Ansco S.S. Pan., in A.B.C. pyro with  $\frac{3}{4}$  carbonate; Defender Velour Black Rough Matt in Amidol.

■ In these days we hear much of the Outdoor Girl, and this picture seems to personify all of the admirable qualities that one associates with that term; health, grace, and a charming natural beauty. It also gives us an opportunity to appreciate the special qualities that are obtainable in outdoor portraiture; the beautiful luminosity and vibrating quality of light that seem to add so much zest and vitality to the print. A good outdoor portrait can be living and real, with a naturalness that is most difficult to obtain under artificial conditions. In the present print we find a fine solid roundness in the head, and a lovely flow of line throughout the whole of the print that is most evident in the hair which is beautifully shown. The spacing is excellent there being just enough of the shoulder showing to give proper support to the head. The one disappointing item is the teeth. These are too low in key and tend to detract from the beauty of the subject.

**Third Award  
Amateur Class**

■ Mr. Yamakawa has worked out an interesting pattern and done a good technical job with "Texture". It is instructive to notice the movement of the eye through this picture. The highlight in the upper left lifts the eye to that area and it then dribbles downwards, shuttling about the converging lines formed by the arrangement of the cloths. It reaches the bottom only to be again lifted and the process repeats itself indefinitely. The movement reminds one of the games of chance that are now found on every newstand, in which a ball is shot to the top of an inclined nail studded board, its downward motion being constantly interrupted by the nails. The manual operation of shooting the ball to the top, in the case of the game, is taken care of in the picture by the highlight in the upper left. While it may be considered purely as a design, the picture seems to be more in the spirit of Illustrative or Advertising photography, than what is commonly accepted as Pictorial work.



**"Texture"**  
Victor T. Yamakawa

Data:  $5 \times 7$ " E. K. View;  $8\frac{1}{2}$ " B.&L. Protar Series 7a;  $1/2$  sec. at F:22, on E.K. S.S. Pan., with X-1 filter, in D-1 with 10% reduction of carbonate; E.K. Vitava Opal in D-64-C.

**Fourth Award**  
**Amateur Class**

■ We believe that Mr. Wingfield was intrigued by the lovely oval shaped face of his model, and that his posing, lighting, and general treatment are well calculated to bring out this aspect of the head. Apparently to maintain the symmetry of contour for which he was working he permitted the drape to cut the line of the jaw. This seems to be a legitimate subterfuge but we do not feel that this line of the drape is quite right for the purpose. It should be a little higher at its upper end and slightly lower at a point just above where it leaves the chin. It would then conform more accurately with the ideal jaw line that we are trying to establish.

In low key portraiture it is especially difficult to prevent the blocking up of shadows and to maintain separation from the background. Mr. Wingfield has not been entirely successful in either respect. We cannot be sure that the shadow on the background at the base of the neck will be visible in the reproduction. It is a disturbing factor in the print because it blends into the line of the back, is not easily recognized as a shadow, and sets up an awkward shape that is not in keeping with the structural lines of the picture. This could easily be removed on the paper negative.

Data: 3A E.K. Kodak; K.A. Anastigmat; 1 sec. at F:6.3, on E.K. Verichrome, in M.Q. tube, by 2 Photofloods; final print on Agfa Ansco Brovira Porcelain Soft from paper negative; D-72.



**"Dolores"**

**C. D. Wingfield, Jr.**



**"Zella"**

**A. B. De La Vergne**

**Fifth Award**  
**Amateur Class**

■ "Zella" is a nicely conceived portrait that suffers somewhat on the technical side because of blocked up shadows. This is especially evident in the dress. A very interesting feature of the picture is the use made of the hand. There are those who may object to this on the ground that the hand competes with the face for interest. Our own view of the matter is that the hand performs two useful functions. Instead of considering it a distraction we can logically say that it acts as a leading line, which carries the eye up to the face, and that it also is distinctly useful in breaking up the large black area of the dress. If the hand were not present we should be forced to trim in order to reduce the size of the dress area. Incidentally the hand is quite gracefully posed, although it might be advisable to show just a little more of the thumb.

Data: 5x7" View; Velostigmat lens;  $\frac{1}{2}$  sec., by 2-1000 W Mazda lamps, on E. K. Portrait Pan.; E.K. Opal H, in Amidol.

a subject so rooted in the soil, so tied to reality, in such an abstract setting. To completely discuss this aspect would take far more space than we have at our command. The only short answer that can be given is that in the last analysis such a criticism postulates a picture so entirely different from the one we are discussing as to leave almost no relation between the two. The present treatment has the advantage of great simplicity and concentration of subject matter. If it succeeds in conveying to the observer, (as it does to us) an insight into the idea presented in the title, it is successful in withstanding the above criticisms. We hope some of our readers will see fit to comment on these points.

Data:  $2\frac{1}{4} \times 3\frac{1}{4}$ " R.B. Graflex; Bausch and Lomb Tessar; 1/100 sec. at F:6.3, in bright sunlight, on film pack, in Rytol; print on Defender Veltex.

### Advanced Competitors

Axel Bahnsen, Yellow Springs, Ohio  
Miss Helen Louise Barham, Nashville, Tenn.  
E. W. Blew, Whittier, Calif.  
Dan J. Broderick, Windsor, Conn.  
Fred E. Crum, Spring Valley, N.Y.  
Evelyn Curtis, Oakland, Calif.  
M. K. Curtis, Oakland, Calif.  
Harold L. Denis, New York, N.Y.  
John Emerson, Chicago, Ill.  
\*Edward Entin, Chicago, Ill.  
N. A. Garman, Philadelphia, Pa.  
Floyd R. Getsinger, Phoenix, Ariz.  
\*Johan Helder, F.R.P.S., Ottawa, Canada  
\*J. K. Hodges, Victoria, B.C., Canada

V. E. Johnson, Chicago, Ill.  
Frederick Kaeser II, Madison, Wisc.  
J. L. Laning, New York, N.Y.  
H. H. Lott, Utica, N.Y.  
Paul W. Macfarlane, Claremont, Calif.  
\*John Muller, New York, N.Y.  
L. S. Olson, Brooklyn, N.Y.  
Nolan C. Richey, Seattle, Wash.  
Fred H. Rothstein, Bayside, N.Y.  
D. Schneider, Oelwein, Iowa  
\*Dr. Max Thorek, F.R.P.S., Chicago, Ill.  
C. B. Toombs, Pacific Grove, Calif.

\*Denotes Prize Winners

### Amateur Competitors

J. D. Aydlett, Norfolk, Va.  
Ralph M. Bair, Glenside, Pa.  
F. M. Beckett, San Jose, Calif.  
\*H. C. Benedict, Berkeley, Calif.  
Heinz Bertelsmann, Berkeley, Calif.  
H. V. Birch, Schenectady, N.Y.  
Hans Bothe, Riverside, Calif.  
Rolf H. Bruhn, Osceola, Iowa  
Robert N. Bushman, Schenectady, N.Y.  
Roland Calder, Berkeley, Calif.  
Lloyd J. Cartwright, Saginaw, Mich.  
J. W. Case, Schenectady, N.Y.  
Bland H. Casebolt, Fresno, Calif.  
Margaret B. Clarke, San Francisco, Calif.  
Raymond B. Collier, San Francisco, Calif.  
John Culp, Pacific Grove, Calif.  
\*A. B. De La Vergne, Denver, Colo.  
R. Desme, Brooklyn, N.Y.  
E. G. England, Jr., Durham, Calif.  
O. M. Erpenstein, San Francisco, Calif.  
J. R. Evans, Ocean Beach, Calif.  
George Francom, New York, N.Y.  
Mortimer Friedman, New York, N.Y.  
Mitsutaro Fuku, Seattle, Wash.  
Ralph Duncan Geiser, Troy, N.Y.  
A. Hatori, San Francisco, Calif.  
Johanna E. Heim, San Francisco, Calif.  
Charles Hughes, Jamaica, L.I., N.Y.  
Delbert E. Jack, Berkeley, Calif.  
Rev. Thomas E. Jones, Melbourne, Australia  
J. Kamastu, San Francisco, Calif.  
S. Kawai, San Francisco, Calif.  
Ernest W. Kestner, Schenectady, N.Y.  
Ray Kuhn, Cleveland, Ohio  
D. Lane, Santa Cruz, Calif.  
A. R. Lindgren, Rochester, N.Y.  
William J. McCune, Amsterdam, N.Y.

C. N. McDavitt, Schenectady, N.Y.  
M. Melville, San Francisco, Calif.  
Richard H. Mercer, San Francisco, Calif.  
Hubert W. Meyer, Schenectady, N.Y.  
L. E. Molander, Humboldt, Iowa  
W. T. Nakahara, San Francisco, Calif.  
George S. Nalle, Austin, Texas  
John V. Newman  
Don Kirby Oliver, San Francisco, Calif.  
R. W. O'son, Scotia, N.Y.  
Robert Osborne, Jr., East Orange, N.J.  
Frank X. Reilly, Pottsville, Pa.  
F. W. Rickards, Alameda, Calif.  
Everett Rudisil, Lincoln, Neb.  
E. Ashford Sampson, San Francisco, Calif.  
Carleton A. Scheinert, Pasadena, Calif.  
Alajos Schuszler, Brooklyn, N.Y.  
George Schmidt, The Bronx, N.Y.  
George Semonsen, San Francisco, Calif.  
L. H. Shaw, Schenectady, N.Y.  
Alex Silverberg, Cleveland, Ohio  
N. P. Smith, Toronto, Canada  
Francis Stewart, San Francisco, Calif.  
H. M. Takahashi, San Francisco, Calif.  
Henry Tanaka, San Francisco, Calif.  
L. A. Taylor, Schenectady, N.Y.  
Elton H. P. Wade, New Brunswick, N.J.  
Homer Wakefield, Provo, Utah  
Mabel Wallace, Winnfield, La.  
William E. Wing, San Francisco, Calif.  
\*C. D. Wingfield, Jr., Richmond, Va.  
Robert F. Wood, Lawerance, Kans.  
\*Victor Yamakawa, San Francisco, Calif.  
G. T. Yang, Peiping, China  
\*Augusta Zachary, San Francisco, Calif.

\*Denotes Prize Winners

# Correspondence

## Licensing Ordinances

Dear Sir:

Noticing the discussion regarding licens-

ing ordinances in **Camera Craft** I thought you might be interested in my own experience. The following, I believe you will

agree gives an instance in which the licensing ordinance has been improperly used.

Several months ago I exhibited a series of camera studies in the window of a local jewelry store. They were done purely from an art standpoint. The pictures were not for sale. After several weeks had passed I was ordered to appear before the city clerk on the charge of doing business in the city of — without a license. The local photographer was the complainant.

Indignantly I remonstrated with the city clerk and received a half-apology, but also the warning that if I were to sell any of the photographs I would have to take out a license.

The local ordinance which was passed in May 1933 at the behest of the local photographer reads as follows:

#### Ordinance No. 593

**An Ordinance amending Ordinance No. 583 entitled "An Ordinance providing for the imposition and collection of license taxes on various kinds of business, professions and vocations, transacted and carried on within the City of —, County of —, State of California, prescribing the penalties for a violation thereof, and repealing Ordinance No. 370 of said city," by adding to said Ordinance a new section to be numbered 17a regulating the business of itinerant or traveling photographers and photographers' agents in the city of —.**

The City Council of the City of — do ordain as follows:

**SECTION 17a. Every person, firm, association or corporation transacting, conducting, managing or carrying on the business of photography; or of copying, enlarging, reducing or coloring retouched or unretouched photographs; or of peddling or distributing tickets, coupons, certificates, merchandise coupons or merchandise certificates to apply in whole or in part as payment for photographs or frames for photographs, within the City of —, except in a permanent place of business as the same is hereinafter de-**

**finied, shall pay a license of \$25.00 per day for carrying on such business.**

For the purpose of this section a permanent place of business is defined as a place of business which has been established in the City of — for a period of not less than six months, or which is being conducted on premises leased for a period of at least six months under bond for payment of rental for such period.

**SECTION 2.** This ordinance shall be published twice in a daily newspaper printed and published in the City of —, before becoming effective.

The maximum penalty for failure is 90 days imprisonment and \$300.00 fine. The parent ordinance on business licenses does not define the word "business", thus the photo ordinance seems to be open for most any invidious action by those who choose to use it.

I might also mention in passing the comment on the ethics of the local photographer which was made to me by the city clerk; to quote: "He comes in and makes a complaint that there is an unlicensed photographer in town every once in a while, every time he sees someone set up a kodak on a tripod and photograph a building."

The local photographer claims he practically wrote the ordinance. In its present vague form it could be applied to any free-lance work.

Sincerely yours,  
F. Preston Willcox.

#### Exhibition Available

Dear Sir:

We wish to advise you that "The Pack Rats" now have a salon of thirty prints consisting entirely of desert subjects, which are available for exhibition. This salon has been exhibited at the Los Angeles Camera Club and is now on exhibit until October first, at the California Camera Club of San Francisco.

As you probably receive many inquiries and requests for salons of this kind we would appreciate it if you would mention this salon to any Camera Club which might write to you. We will be glad to forward this group of prints to any club which might care to exhibit them.

"The Pack Rats" were organized in

February 1930, and dedicated to the exploration of the Southwestern Desert and the perpetuation of its beauty thru the art of photography. There are twelve active members. The honorary members include: Jas. H. Lawshe, Julius Cindrich, Milton Inman and Fred R. Archer. These men represent the club as critics and judges of our various competitions. The officers are Ellis W. Foote, President and William Hart, Secretary. Meetings are held on the first and third Monday of each month at the studios of Shevenau Monsen, 550 South Madison Avenue, Pasadena, at which visitors are always welcome.

The articles appearing in **Camera Craft** are greatly appreciated and during the past year, your magazine has proved to be the most popular of all the camera journals among our members. With best wishes for its continued success, we are

Yours very truly,

"The Pack Rats".

William Hart,

Secretary.

230 East Colorado Street,  
Pasadena, California.

### Traveling Shows

Gentlemen:

The Spokane Camera Club wishes to thank you for the opportunity of viewing your wonderful exhibit of contest prints.

Very keen interest was shown by members of our club and also the public. **Camera Craft** was highly commended for

getting together such a wonderful exhibit and making it possible for others to see it.

Our Club has started an exhibit of prints which we hope will be available for other clubs to view in the near future. We have already sent an exhibit of about twenty prints to Yakima, Washington, where a new club is organizing which we are certain will grow rapidly.

We sincerely hope that every camera club viewing your exhibit will anticipate as keen interest as was shown in Spokane. We are anxiously awaiting your second group of outstanding prints.

Sincerely yours,

Spokane Camera Club

E. J. Kirkpatrick, Sec.-Treas.

Dear Mr. Young:

On behalf of the Schenectady Photographic Society, may I congratulate you on **Camera Craft's** very fine show. It is the consensus of opinion among the members of our Society that it is the finest we have had the privilege of hanging.

The uniformity of the mounting brought out the exceptional quality of the prints, while the judges comments on the front of the mounts added to the educational value of the show.

We are anticipating the privilege of hanging more of your shows.

Very truly yours,

Robert N. Bushman,

Chairman Salon Committee,  
Schenectady Photographic  
Society.

# Photographic Digest

**Dr. H. D'Arcy Power, F. R. P. S.**

### The London Photographic Exhibitions

As in other years I have again visited and spent many hours in these exhibitions to gauge and report on the direction and progress of photography as a Fine Art, and also to note its ever growing import-

ance as perhaps the most important tool of science. Both the exhibitions are primarily concerned with the Art side but the Royal has an inadequate Scientific display that properly classified and explained could be of great value and interest.



## The Royal Photographic Society's Exhibition

Before becoming critical let me say that the 256 prints that have been hung by the committee of selection are as a body above criticism as regards technique and the utilization of ever improving materials. It is not in the handling of the tools that fault is to be found. The aim, and its realization is another matter. Of artisans there are enough, what about artists and at what do they aim? I will say little of pictures that my readers are little likely to see but the society publishes an illustrated catalogue (25 cents) and a Year book (price \$1.25) that are worth having and from these I will draw most of the material to follow.

The Year Book opens with a photograph entitled *Madonnas*. I must assume that the Publication Committee accorded this prominent place to "*Madonnas*" as expressing their sense of its worth. Now what is it, and what does it express? Why the plural S when there is only one person depicted. The title would suggest a religious subject of the Italian school or the Preraphaelite revival.

The model is a sufficiently pleasant young lady, the torso draped in white gauze and over the head a band of black crepe falling to the waist. Over the hair, parted to the side is a quite transparent tissue (celluloid?) ending at the hair line in a bright line, and seemingly intended to represent the customary aureole. From below the waist arises what looks like a crooked formless sleeve and a hand coming seemingly from nowhere and holding on to the crumpled gauze. The usual supply of lilies (paper?) are scattered about. At a passing glance the effect is pleasant, thanks to the face and the lighting, but the thing is first of all an imitation and a bad one, of a by-gone school of painting, and of a holy subject that should be treated with respect. That the fraud may pass muster with an uncritical public is to be expected, but what about the Judges and the Hanging committee? What is said about this photograph applies to all too many that are hung in both, this exhibition and

the Salon, things technically good enough, but bearing ridiculous titles, absurd posing, lack of knowledge of the object sought, and other faults that a moderate art schooling for serious work would eliminate.

It is obviously nonsense to attempt individually to criticize over 600 pictures. Walking round the rooms at a sufficient distance the eye may be attracted, pleasantly or otherwise by certain exhibits, thus one cannot pass by C. Pollard Crowthers "*Moirá*" No. 231 a delightful portrait of a very beautiful face. Portraiture is on the whole very good but not an advance on previous years, although thanks to the introduction of the new paper Gaevaluxe examples of its use are apt to strike the eye by reason of its power to give striking effects not always due to the excellence of the portrait. A particularly good portrait is that of the past president of the Society, J. Dudley Johnson, by A. A. Weir and a very striking one is that of Havelock Ellis by Maurice Turney which won the Pirie MacDonald premier Prize; the great snowy white head stares out of a background of solid jet black, it follows you out of the room, and reappears in the night. I am an admirer of Havelock Ellis and his great labours but I cannot imagine that portrait hanging on my library wall. Alas this head like a great many more on exhibition is imprisoned in the close-up square frame that is the passing fashion. Sometimes a portion of the head is sacrificed and nearly always the absence of secondary half tones in the environment give these decapitated large heads a ghastly appearance. One exhibitor, Carlo Parella, escapes the difficulty in his "*Anima Sarda*", where the subject is skillfully enveloped in dark garments that fill the picture area and so avoids the sense of unpleasant isolation. Returning for a moment to the Havelock Ellis portrait it is with all its brilliance technically defective in that the hair of the whiskers while extremely sharp on one side are blurred on the other. No portrait painter would pass such a blemish.

Nudes are more in evidence than in the

last exhibition and the modern open air movement makes it possible to obtain models from a more refined class, no longer hindered by shyness and false modesty from disclosing their charms. Whether those exhibited at both the shows add to our art treasures may be doubted. As an adjunct to Landscape they can be very valuable, but then one or the other must constitute the picture, a rule by no means adhered to by some of the workers.

There is very much beautiful Landscape in both exhibitions and with a standard of excellence that makes it commonplace, so that the public, satiated with good things, turns to the trash offered by the not quite extinct Modernists who offer a row of tin plates on a piece of paper for the more valuable originals in a shop window.

Buildings and places: here we find photography at its best where the vast improvement in its tools enables it to outdistance other media. These correctly used ensure correctness of drawing and a perfection of texture that given the seeing eye and a love of beauty make real pictures a possibility; pictures that may be seen every day and never weary.

The remarks I have made apply to both the Royal and the Salon exhibits, the policy and practice of these, at one time divergent bodies, approximating more and more to a common standard. From an analysis of the R.P.S. Catalogue we may estimate certain trends, as for instance the printing papers now favored: here are some figures:—

Bromide paper 107, Chloro-bromide 84, Gaevaluxe 16, Bromoil 15, Gas-light 5, Fresson 2, Carbon 2, Gum-bichromate 1. The greater ease of manipulation and

certainty of result inherent in the bromide group have made its priority into almost a monopoly; Gum and Carbon almost disappear and the upward march of Bromoil is thrown back. The disappearance of these media would be regrettable. Carbon has qualities that for some subjects cannot be equaled by any other medium; Gum-bichromate could provide a pure black that stood alone (it is now challenged by Gaevaluxe) and Bromoil, when not abused, a power of control that every true artist seeks.

Another interesting question can be tested by these catalogues, viz, where do the exhibitors come from? Glancing over the catalogue of the Royal the absence of an exhibit from France or Germany is noticeable but France has never been a great exhibitor outside its own country, and Germany is otherwise engaged. A compensation is made by the territory of the old Austro-Hungarian Empire. Czecho-Slovakia and Jugo-Slavia send four, Austria nine, and Hungary fifteen with 26 exhibits. The Hungarian exhibit rightly commands great interest both for the subject and their treatment but particularly for a successful novelty, namely large pictures printed on Glossy Bromide paper mounted absolutely flat so that no sheen is visible, but only the added strength and clarity that one sees in a well varnished Oil painting. They justly excite admiration as seen under glass, but there is a question as to how they would appear after standing the bad treatment that photographic work so often endures.

Further comments on the color prints, Lantern slides, and the Scientific exhibit but be reserved for another issue of this Journal.

## Club Notes

### P.S.A. Print Interchange for Minicams

On Oct. 1st the Photographic Society of America inaugurated an interchange of prints by miniature camera workers

among its members. Prof. John A. Davis, Stevens Institute of Technology, Hoboken, N.J., director of this miniature camera print interchange, reports that fifteen

member clubs will participate this year. Three sets of prints are being circulated on a schedule which permits each club to retain the prints for a period of two weeks for exhibition in its club rooms.

Miniature camera clubs interested in a print interchange should communicate with Prof. Davis or the P.S.A. secretary.

### **P.P.A. Opener Breaks Records**

All attendance records were broken at the first fall meeting of the Pictorial Photographers of America in New York on October 2. The speakers were Dr. Arnold Genthe, who described some of the methods he has developed in his thirty-five years of experience, and Edward Van Altena, who showed a hundred of his remarkable three-color-separation slides.

Dr. Genthe, who was introduced by William Howard Gardiner, new chairman of the program committee, laid great stress on the camera's unique ability to capture the expressions, attitudes and moods of people without their knowledge. In his early days Dr. Genthe photographed Chinese in San Francisco in this way—which is essentially the method of the modern "candid camera"—and this experience so influenced his work that his portraits are still taken today while the subject is unconscious that he is being photographed.

In line with the announced purpose of the society for the coming season of giving its members every opportunity to master the problem of "print quality", some forty of Dr. Genthe's prints were shown, and their method and purpose explained.

In the monthly print competition which always precedes the meeting on the first Tuesday of each month, over forty prints

were hung. Thomas O. Sheckell received two awards, while Harold Halliday Costain, winner of the cup for the last two seasons, again had one of his prints chosen by popular vote.

### **Camera Club of New York**

At the September meeting, The Board of Trustees of The Camera Club of New York, decided to give a "Get-Together" Dinner at the Club Rooms on the night of Dec. 8th. The Dinner Committee promise some novel features. The Board is extremely gratified at the list of new members admitted during the current year. The Annual Members Show will be on the walls from Dec. 1st to the 31st. The Instruction Committee announces that a series of Thirteen Demonstrations on Photography, will be given on successive Wednesday evenings, starting on Jan. 9th. The course will cover the subject from the setting up of the camera to the actual making of a Bromoil Transfer. Further details next month.

### **Camera Craft Traveling Shows**

The Camera Craft Traveling Shows are currently on exhibition at:

#### **Group I**

Lansing Camera Club, Lansing, Mich., Nov. 1st-8th; Midland Camera Club, Midland, Mich., Nov. 10th-20th; Cleveland Photographic Society, Cleveland, Ohio, Nov. 23rd-Dec. 2nd; Portage Camera Club, Akron, Ohio, Dec. 4th-14th.

#### **Group II**

Taft Camera Club, Taft, Calif., Oct. 26-Nov. 2; Bakersfield Camera Club, Bakersfield, Calif., Nov. 5-15th; Tripod Pictorialists, Covina, Calif., Nov. 18th-28th; Whittier Camera Club, Whittier, Calif., Dec. 2nd-12th.

## **Notes and Comments**

### **The Mortensen Texture Matrix**

The beautiful effects which Mr. Mortensen obtains in his pictures by means of his texture process have long been the envy of many a photographer, and they have impatiently awaited the day when they would have the opportunity of using

the process in their own work. That day has now arrived and the Mortensen Texture Process is available to the general public. If we may be pardoned a brevity that is forced upon us by the limitations of space the following summary will give an idea of the advantages of the

process. It will be noted that the texture is most evident in the middle tones; it does not print through in the extreme highlights and it merges into the deepest shadows. Thus in effect it extends the effective range of the paper by adding an additional note at each end of the scale. This without upsetting delicate gradations because the contrasts of the negative are not altered. From this it will be seen that the process assists in obtaining deeper blacks because of the slight additional deposit imparted by the texture to the deep shadows, and that it improves modeling by accenting the subtle gradations in the middle tones where modeling is achieved. It imparts a vibration to the prints which, though visually different, is psychologically similar to the vibrant quality that gives so much charm to a well done bromoil transfer. Two advantages that will be of special interest to the miniature worker are these: it improves definition by imparting a certain "sharpness of line" to the print and at the same time decreases grain by breaking up smooth areas where grain is most likely to show. It simplifies spotting and retouching by covering up small defects and by affording the opportunity for blending others into the texture. Its use is practical and easy and involves no departure from established projection methods. The matrix is furnished in 11x14" size and full instructions as to care and use are supplied. See it at your dealers or write to William Mortensen, Laguna Beach, Calif., for further details.

#### **"Tabloid" Fine-Grain Developer**

A developer specially intended for the production of fine-grain negatives has been introduced by Burroughs Wellcome & Co. It is known as "Tabloid" Fine-Grain Developer and may be used for miniature or other films or plates which it is desired to enlarge to a considerable degree.

This is a developer possessing distinct and original features of its own. Its use does not demand increased exposure or increased development and it gives negatives free from fault or chemical blemish even when used with the fastest of fine-

grain films. It is prepared from ingredients of exceptional purity, a point of great importance in miniature negative work.

Dissolved in plain water, it is a most satisfactory fine-grain developer for negatives designed to be enlarged up to about 10 diameters (V.P.K. to 20x15 approx.), and has this further advantage, that if a 20 per cent solution of anhydrous sodium sulphite is used, instead of part of the water, the grain is still finer and permits of much greater degrees of enlargement.

A time-table is given of correct times for developing different films at different temperatures. Factors for factorial development are also given on the cartons so that development to the correct degree of contrast is rendered delightfully simple.

"Tabloid" Fine-Grain Developer is issued in cartons each containing materials sufficient for preparing 30 ounces of normal strength developer, or 60 ounces of tank developer.

#### **Photographic Lens Co.**

We have often encountered individuals who were searching high and low for a place to purchase some particular piece of optical equipment that they had in mind. For such cases we are happy to pass along the address of the Photographic Lens Co., 152 W. 42nd St., New York, N.Y. who specialize in buying, selling and exchanging new or used lenses. Take your lens problem to them.

#### **Action Shots Indoors!**

Solite would like to receive communications from amateurs and professionals having outstanding success in the making of action shots by artificial light. Action photographs of dancers; athletes; children; animals, etc., made indoors by Solite at split second exposures have appeared so frequently that Solite believes the collection of a number of such Solite shots would prove interesting as well as instructive. The great light concentrations possible with Solite should have produced some outstanding pictures. Solite would like to hear from the makers of indoor snapshots of outstanding quality. Address letters to SOLITE, 1373 Sixth Avenue, New York City.

### **Recent Changes in Eastman Executives**

Herman C. Sievers, since 1932 General Sales Manager of the Eastman Kodak Company, was elected Vice-President in charge of Sales and Advertising at the monthly meeting of the Board of Directors held September 12, 1934. Mr. Sievers succeeds Lewis B. Jones, who died August 25, 1934.

Mr. Sievers joined the company in 1902, at which time he was manager of a photographic stockhouse. For more than thirty years he has been in close contact with the photographic retail trade, and he enjoys a wide acquaintance among Kodak dealers all over the country.

At the same meeting of the Board of Directors, Albert F. Sulzer, Manager of Kodak Park, was elected Vice-President in charge of Kodak Park. D. C. E. Kenneth Mees, Director of Research and Development, was elected Vice-President in charge of Research and Development.

### **Exchanging Pictures**

Those who are interested in exchanging their pictures with others throughout the world, are informed of the formation of the National Photo Exchange Club, Room 125c, 1448 Webster St., Oakland, Calif. This club is designed to establish contacts among those who are interested in this activity, and the charge for membership is very small indeed. Write for full information.

### **Verebest Chemicals**

The Verebest Chemicals and Photographic Specialties are far too numerous to mention in detail here. Suffice it to say that they are products of first rate quality, and that there is bound to be something in their line that will meet a long felt need. We therefore suggest that you write today to Photo Crafts Laboratory, Wantagh, Long Island, N.Y., requesting the pamphlet that describes the uses of each Verebest product in detail. Those who fail to make a purchase after reading the pamphlet may consider themselves exceptionally well equipped photographers.

### **Duxochrom Color Process**

Color workers will be interested in knowing that Mr. James Bealmear, 3410

Elgin Ave., Baltimore, Md., is the American Agent for the Duxochrom Color Process and stands ready to supply all necessary materials. The Duxochrom process embodies certain simplifications of procedure, and materials that goes far toward insuring constantly successful results in the production of full color prints on paper. In outline the process is as follows: Three color separation negatives are made in the usual manner. These are then printed on the special Duxochrom Color films; the red-filter negative on the blue film, the green on the red, and the blue on the yellow. Printing may be by either contact or projection, and obviously as many prints as desired may be made. The process has the advantage of permitting a fair degree of control at this point for after the color films have been developed and fixed their relative intensity may be adjusted if necessary by reducing any color that appears too strong. Each color film is subsequently brought in contact with the transfer paper under water, and the three colors superimposed in this manner stripping does not take place until drying is complete, and if thorough drying is allowed there should be no difficulty in this regard. It will be evident to those familiar with color work that this process eliminates or simplifies a number of ticklish steps that make difficulty in other methods, and for that reason has much to recommend it. Mr. Bealmear will supply an excellent instruction booklet giving full working directions.

### **Contax Accessories**

Accessories for the Contax Camera are so numerous and at the same time so useful that we make the following suggestion with the confidence that those who act upon it will in no wise be disappointed. Carl Zeiss Inc., 485 Fifth Ave., New York, N.Y., or 728 So. Hill St., Los Angeles, Calif., have recently issued a 50 page booklet entitled Accessories for Contax Photography. This describes in detail the accessories that are available for use with the Contax and is liberally illustrated with examples of work that has been made possible by their use. Write for your copy today.



# Classified Advertisements

This is purely a convenience department for the reader and for that purpose offers Classified Advertisements at cost. 4 cents a word; minimum \$1.00 each insertion. Dealer merchandising ads must be placed in display space at 30 cents per agate line, 10 agate lines minimum. Position Wanted ads, one insertion free. Copy for this department must reach us on or before the 15th and in every case be prepaid.

## OUTFITS FOR SALE

◆Series "D" Graflex 4x5 revolving back and outfit consisting of Carl Zeiss (Jena) Tessar f:4.5 (7¼ inch) lens, cut film magazine, ground glass adapter, film pack adapter, K 3 filter, wooden tripod, focusing cloth, and two leather plush-lined carrying cases. All in first class condition; cost new \$325.00, make cash offer. Phone GLEncourt 1212. E. E. Westergreen, Central Bank Bldg., Oakland, Calif.

◆9x12 Ernemann Scientist Reflex, double extension 7" F:3.5 lens, film pack adapter, ground glass back, case. Schneider Telexenar, 14¼" f:5.5. Practically new. List \$400.00. Sell \$175.00. P. B. Stidham, St. Paul Institute, St. Paul, Minn.

◆Leica Model C 50 mm. f:3.5 lens. Case, range finder, cable, \$55.00. Bland H. Casebolt, 910 Arthur St., Fresno, Calif.

◆Complete set of CAMERA WORK, edited and published by Alfred Stieglitz. Fifty regular issues and three special numbers. Excellent condition. Make an offer. F. E. W., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆Leica Camera, Model D, Elmar lens, f:3.5, 50 mm.; Sunshade, Everready case, Vidom Finder; and extra telephoto lens, Elmar f:4.5, 135 mm. All in excellent condition. Bargain \$145.00. H. E. S., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆Camera Crafts back to 1913 sold by year only, \$1.25 per year. M. Bailey, 12 Elm St., Santa Cruz, Calif.

◆Model D Leica, Elmar 50 mm. lens, Everready case, almost new, \$85.00. Leica Filoy enlarger

Latest model Eastman Auto Focus 5x7 Enlarger like new \$110.00. 3¼x4¼ Sinclair Una Tropical model with F:6.3 Bausch & Lomb Tessar, case, three plate holders, focus panel, \$42.50. 2¼x3¼ Contessa Deekrullo Tropical model F:4.5 Zeiss Tessar, three plate holders, film pack adapter, focus panel, like new \$60.00. 6x13 cm. Monobloc Stereo F:4.5 Berthoit lenses, case, two magazines \$40.00.

Hollywood Camera Exchange, Ltd.  
1600 North Cahuenga Blvd., Hollywood, Calif.

## FOR SALE

Dunker Direct Positive Camera, Visualizer, Enlarger and Booth. W. SCHILLER & CO., 6 So. Broadway, St. Louis, Mo.

## MINIATURE CAMERISTS

Trade in your old equipment on a new Leica or Rolleiflex. Liberal allowance. Bargains in used Leica equipment. Ask for new, quick-action folding copying device.

### MINIATURE CAMERA SHOP

1600 Post St., San Francisco Ph. WA 4484

## OUTFITS FOR SALE

(Model prior to Valoy) new, \$32.50. Correx Tank, new, \$5.00. S. M., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆45x107 Contessa-Nettel Duchessa Stereo 6.3 Zeiss lenses in Compur 6.5 mm. focus. Pack adapter, good condition., \$37.50. Frank Wilkin, 2074 Allston Way, Berkeley, Calif.

◆Model E (Standard) Leica, almost new (used 3 times) Elmar 50 mm. lens, Eveready case (for D model), \$60.00. Universal View Finder (prior model) \$7.50. Leicascope \$4.00. H. M., c/o Camera Craft, 703 Market St., San Francisco, Calif.

◆Leica Ground-Glass Focusing copy attachment, Model Two, Fulet, like new \$8.00 postpaid. Boyd Shelton, Veteran's Hospital, Tucson, Arizona.

## OUTFITS WANTED

◆3¼x4¼ R.B. Graflex. Must be in good condition both appearance and mechanical. Prefer model D. Must be cheap for cash. W. T. N., c/o Camera Craft, 703 Market St., San Francisco, Calif.

## LENSES FOR SALE

◆Bausch and Lomb Zeiss Protar Series VII Focus 16½ inches Volute Shutter, \$50.00. Wollensack F8 Voltas 8x10 in Autex Shutter, \$15.00. Both guaranteed. Photo Service, Box 118, Kansas City, Kans.

## POSITIONS WANTED

◆To manage small or large studio. Well qualified to handle all branches. Portrait, commercial, kodak, panoramic. Twenty years experience. Ambitious, hard worker, married. References. Robert J. Mathes, 637 Hampshire, Quincy, Ill.

◆Young man, operator and finisher. Eight years of reputable commercial and portrait studio experience. G. F. Torgeson, c/o Camera Craft, 703 Market St., San Francisco, Calif.

## INCOME from your camera instead of expense.

I Low-cost, home course teaches you to make photographs for magazines, newspapers, advertisers. Tremendous demand. Earn good money wherever you live. Freebook. Universal Photographers, Dept. K, 10 West 33rd St., New York.

## SAC, universal, visual focusing, reproduction and copying device for your LEICA. Portable, rigid and light.

Extremely wide range. Accurately and well made. Priced reasonably and unconditionally guaranteed. At your dealer or directly from: SAC, 1600 California St., San Francisco, Calif.

Target Pistols, Rifles, Shotguns, Revolvers, Microscopes, Binoculars, Telescopes, accepted in trade at liberal allowances on any photographic equipment, motion picture of "still." Authorized representatives of Leitz, Zeiss, Eastman, Victor, Bell & Howell, and every leading manufacturer. NATIONAL CAMERA EXCHANGE, Established in 1914, 5 South Fifth Street, Minneapolis, Minnesota.

# C A M E R A



"Winter-Mariposa Big Trees-Yosemite National Park"

Ansel Adams



# CRAFT

REG. U. S. PAT. OFFICE

**DECEMBER 1934**  
**VOL. XLI Number 12**  
**SAN FRANCISCO**  
**• CALIFORNIA •**  
**PRICE 25c**



## In This Issue

**HOW IT WAS DONE** . . . . . **H. F. Kells**  
**PORTRAITURE** . . . . . **Arnold Genthe**  
**CHRISTMAS CARDS** . . . . . **John F. McFarlane**

# READY NOW!

## PROJECTION CONTROL

By WILLIAM MORTENSEN

Second Edition

COMPLETELY REVISED AND EXPANDED TO 3 TIMES ITS  
PREVIOUS LENGTH WITH MORE THAN 20  
ADDITIONAL ILLUSTRATIONS

This revision and expansion has been carried out in response to repeated questions for fuller information on the matters previously considered and for explanations of the application of Projection Control to types of pictures not previously dealt with.

### CHAPTER HEADS

- I Scope and Uses of Projection Control
- II Equipment and Materials
- III Negative Quality
- IV Simple Projection Printing
- V 4 Methods of Projection Control
- VI Framing
- VII Local Printing
- VIII Distortion
- IX Montage and Combination Printing
- X Pax Vobiscum

Cloth \$1.75

AT YOUR DEALER OR

CAMERA CRAFT PUBLISHING CO.

703 MARKET STREET

SAN FRANCISCO

CALIFORNIA



*A* **REPUTATION**  
*Built On Performance*

## *Agfa* **SUPERPAN ROLL FILM**

The assured results with Superpan Roll Film add to the allure-ment of night photography for the venturesome stillcamera pictorialist. These inherent features are responsible for the special adaptability of Agfa Superpan for negatives under artificial light.

1. Sensitivity to all colors including red.
2. Speed—six times as fast as ordinary film, two to three times as fast as Plenachrome.
3. Exceptional gradation of finest detail protected by a special green anti-halation coating.
4. Excellent keeping quality—especially important to pictorialists who work intermittently.

To assure satisfactory results with night photography, standardize on Agfa Superpan Roll Film.

**AGFA ANSCO CORPORATION**

Binghamton, New York



Boston, New York, Cincinnati, Chicago, Kansas City, San Francisco, Los Angeles  
Canada: Agfa Ansco Limited, 204 King Street East, Toronto, Ontario

Please mention Camera Craft when corresponding with Advertisers

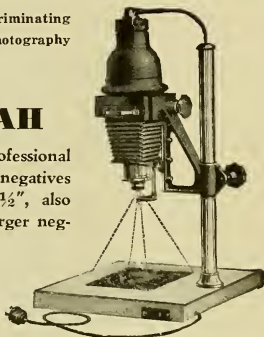


# BROOKS ENLARGERS

For the Discriminating  
Worker in Photography

## RAJAH

Ideal for Professional  
Use. For all negatives  
up to  $3\frac{1}{2} \times 3\frac{1}{2}$ ", also  
portions of larger neg-  
atives.



The Rajah has a highly corrected  $f/4.5$  lens with Iris diaphragm and focusing mount. Extra long bellows permits reductions and wide range of work. Baseboard with light control switch. Device for diffused light. Tilting negative holder to correct distortion. Supplied with 100-watt frosted or photo-flood bulb.  
Complete..... \$63.50

Also model for  $5 \times 5$ " negatives and smaller.

## FOTH-DERBY

The ideal Enlarger for  
Motion Picture Film,  
Foth-Derby, Leica and  
other miniature cam-  
era negatives. Features:  
Magnification, 9 diam-  
eters; well-ventilated  
lamp-house with con-  
denser; bulb; light ex-  
posure control in elec-  
tric cord; 2" Foth  
Anastigmat  $f/3.5$   
lens..... \$24.50

With double con-  
denser.... \$26.50



Complete New Enlarger Circular on Request.

## BURLEIGH BROOKS

127 WEST 42 STREET

NEW YORK

# COMING

William Mortensen. Although Mr. Mortensen has only had a three-months' vacation, we are already beginning to receive letters gently hinting that we must be losing our mind if we have failed to arrange for more articles from his pen. We hasten to assure one and all that Mr. Mortensen will be back with us in the January issue with an article on "Outdoor Portraiture With the Miniature Camera."

Ansel Adams is recognized as one of the most experienced living photographers, and the technical beauty of his prints has brought forth many a groan of envy. For many years he has paid particular attention to the photography of winter scenes, and has developed a wonderful technique in the handling of snow subjects. In writing on "Snow Photography" he speaks with the full weight of authority.

How It Was Done. The series of articles under this title have proved distinctly popular and we are pleased to announce that a number of the most prominent pictorial photographers in the country are now working on papers which will appear in this general series. Among those whose articles will be presented in the near future are, H. F. Kells, Ira W. Martin, Thomas O. Scheckel and Dr. Max Thorek.

Forman Hanna has unquestionably established himself as one of the leading photographers of our time and we are therefore proud to present in the near future, his paper on The Photography of the Nude. Mr. Hanna, by no means a "one subject" photographer. He has produced many extremely lovely landscapes, and his series of pictures of the Indians of the southwest are among the best things that have been made with this material. Of late years his outdoor figure studies, have been universally acclaimed wherever shown.

Cecil R. Nelin will tell just what you want to know in his very instructive article on Night Photography. He is a real night photography fan and his enthusiasm is evident in his article to the point of contagion.

P. H. Oelma is a successful illustrative photographer, an instructor in photography, and a prominent pictorialist. Several of his pictures have won awards in our advanced competition. He is convinced that the practice of still life photography is a most practical method for learning a great deal about both composition and lighting. His article on Still Life Photography will be written from that view point.

James N. Doolittle is well known to every reader of this magazine as the gentleman who writes those interesting and instructive reviews of the Los Angeles International Salon. We are happy to pass along the good news that he will write on the same subject again this year, and there will be plenty of pictures. Watch for this in either the January or February issue.

W. W. Davidson has worked out a very helpful article describing the advantages and the various applications of the single element in a symmetrical lens. The illustrations show very clearly just what may be accomplished by making use of the longer focal length that is obtainable when using the single element. Many a photographic failure can be saved if these points are fully understood.

Lloyd J. Cartwright has designed an unusually efficient portable floodlight for amateur home portraiture. Full details for its construction will appear in an early issue.

B. W. Leroy has been engaged in some careful investigation of Infra-Red photography, and has some distinct valuable conclusions to impart. His article on Modified Development for Infra-Red Photography will be of real interest to those who are working in this field. The beautiful quality of his illustrations will convince you that his advice is worth following.







*"Peace on Earth"*  
Walter P. Bruning

# How It Was Done

H. F. Kells

I HAVE often entertained the thought that a very interesting monograph might be written by some pictorialist describing, in detail, how some particular print arrived at its final completion. I have read several articles of this general character and, with the exception of a few, I feel that they have been skimmed in the information which they might have contained for the benefit of the reader. Such details as type of camera, focal length of lens, time of exposure, etc., are practically of no value unless they are supported by the more important information comprising a description of the conception and an analysis of the composition. In many cases there is a very evident reason for the omission of the evolution of thought which led up to the fully developed idea. There was no pre-conceived plan of action. Again, there are those who wish their fellowmen to believe that the artist composes while seized by a frenzy or fit of inspiration. They have a complex which impels a desire to keep the public from peeking backstage at the ropes and pulleys; the paint and patches; the vacillating, immature conceptions; the hopeful experiments and the hopeless failures. In many cases, ideas and suggestions have presented themselves 'higgledy-piggledy' and are carried out and are likewise forgotten. Thus, it is not uncommon that the artist is in no position to recall the steps taken to produce a result.

In my own case I have no compassion for the inconsistencies alluded to and have no difficulty in calling to mind the various steps taken to produce any of my prints.

At the request of Mr. Young, editor of *CAMERA CRAFT*, I am writing this paper and it will not be considered as lacking in decorum if I proceed to show the evolution of one of my prints.

I have selected "Soul of the Dance", being the most generally known, as the basis for this article.

Since no artist can afford to dispense with anything that may further the advance of his composition, I always commence with some form

of sketch. By this procedure, I believe that the artist has a much better opportunity of visualizing the effect of his finished work. Faults that might creep in can often be anticipated and watched for when the image is recorded on the negative.

"Soul of the Dance"—how was I to best express this idea? Furthermore, how was I to express it using the photographic medium to its best advantage? I wished to do this subject in such a way that it would remain within the boundaries of photographic possibilities without suggesting that it might better have been a painting or a piece of sculpture. The method involved may, no doubt, be criticized by the purist, but such is of little moment to him who has art at heart. My object, then, was to produce a picture representing the "Soul of the Dance" or in other words that feeling which actuates the dance, using the human form and light as the only means of attaining the result.

What actuates the dance? Obviously, in most cases, joy—that vivid emotion of youth, a striving to project one's being upward, a desire for liberty gone rampant. Such a picture must have not the least personal suggestion about it. One must feel that here is the hypostasis of all dance—an ideal. It must be executed in such a way that the body of the model and her individuality are forgotten for the beauty of line and pattern and for the way in which the finished work excites the onlooker through elevating his soul for no picture can be considered successful which fails to fulfil this first great requirement of art. Factors which might interfere with the success of attaining the impersonal quality are extreme surface texture, too intimate a view of the model's face, the wrong emotion expressed or overdone if the features must show prominently, improper lighting, lack of or improper retouching and in some cases the unskilful use of drapery.

After a number of trial sketches, I arrived at the pose illustrated in fig. 1. It seemed to me to be a position which expressed my particular impression of youthful joy and freedom. The problem of the lighting then followed. A low source of light, shooting up, would suggest a dancing figure on a stage and would at once kill the impersonal impression which I wished to create, branding it as a material object. The light playing upon the figure from a high angle might do but the light coming from above seemed to me much better as here I was dealing with something more or less spiritual. A top light would also bring out the beauty of the modelling sufficiently while keeping the body in semi-silhouette a quality which would further enhance the impersonal appeal.

I completed the sketch of the figure but still something was lacking. It suggested the physical activity of the dance but not the spiritual emotion. Besides, some kind of a background was needed, yet I had definitely made up my mind to use nothing but the human figure in the composition. What could possibly add to the impression which I had set out to achieve? I confess that I did a great deal of thinking. How might I compliment the idea without dragging in something foreign to my resolution? One of the first suggestions that came to mind was the use of repetition—but how? I began to believe that I had bitten off more than I could chew. I placed the uncompleted sketch in my pocket



Fig. 1

*Original sketch for "Soul of the Dance"*

filing system and forgot about it for a couple of days.

A few nights later I went to see a motion picture. I came away from the theatre rather bored. The picture had failed to put across its story as it should have done. I tried to analyze the play and seek the explanation for my boredom. One thing impressed itself upon me and that was the paucity of the close-up. Right here its lack of intimate dramatic appeal made itself manifest. Could this apply to my "Soul of the Dance"? I searched through my pockets and found the dog-eared sketch of some days ago. Even then the idea didn't fully untangle itself. How could I combine a full figure with a close-up and produce a rational looking result? It sounded like absurd foolishness and, try as I would, I could not visualize a possible combination. Rather half-heartedly I took my pencil and sketched the outline of a head, much magnified, behind the figure. Almost instantly I saw the light glimmering through the mist and I hurried home with a light step.

Here, to my mind, was the ideal way of expressing my idea. The second head must appear in almost repetition with that of the figure, misty and as a pyramidal light grey mass against a light background. This would be in contrast to the semi-silhouette of the full figure. In this way the spectator would be made more intimate with the emotion of the theme because of the larger head. In the second place, here was



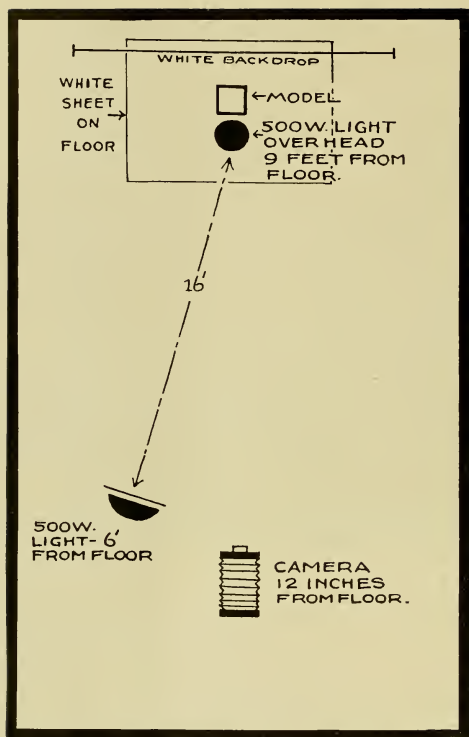


Fig. 2

Lighting diagram  
for  
"Soul of the Dance"

a quite satisfactory symbol for the soul. The unity would not be destroyed as I had previously thought and if anything, the whole composition would be strengthened having a solid pyramidal form.

## Particular Artistic Problems Arising Out Of The Conception And Subject Matter

Right here my heart began to sink again. How was I to expect a model to pose in such a position? True, I might get something to closely resemble the pose but its whole success depended upon an almost exact duplication of the original drawing. Every line of limb and trunk and the shapes of the voides between with their spacing was necessary to the success of the whole.



Fig. 3

My first attempts to capture the pose, the spirit of the thing, were a hopeless failure. Everything was wrong. The lines and spacing were all awkwardly placed. Only a vague suggestion of the pose was recorded. I almost concluded right there and then that I had chosen to achieve an impossibility. At best, there was only one chance in a hundred of ever recording the proper pose by taking scores of negatives and hoping that my model would hit the happy position. After all, such a position can only be held for the fraction of a moment as it is one which is achieved normally while in motion. It appears to be more simple than it is.

A few days later I arrived at the idea of using supports under the heels and far hand so as to allow the model the opportunity of holding her balance. On showing the first results to a friend he suggested the same remedy so I concluded that the knot in the problem was loosed. I again tried to catch the elusive pose and this time succeeded.

A slight movement in the model's hair was thought necessary to further the suggestion of the action and to gain this effect the tips of the locks were held away from the head with threads. A tack was lightly driven into the wall in such a way that if the model should lose her balance the tack and not the hair would be pulled out.

### The Technical Problems Involved

As I have previously mentioned, I wished to represent the figure in semi-silhouette and yet retain the modeling of the anatomical forms. A non-colour sensitive film would have been the logical medium to use



Fig. 4

*Illustrating loss of highlight and shadow detail when copy is made from ordinary print. Compare with Fig. 5 to note improved quality obtained when copy is made from properly prepared original.*

had I not needed all the speed I could attain. As I was forced to use a small stop which would give sufficient depth of focus to include the wide spread of the arms, I chose portrait panchromatic film. I gave the very minimum of exposure and developed in E.K. D-76 borax for double the period of time required for normal exposure. In cutting the exposure in this manner the lighting must be balanced so that there appears to be very little difference between the highlight and shadow areas. Such a negative gives sparkling highlights and thin but fully modelled shadows.

From the various negatives I selected the most perfect duplication of my original sketch. From the remaining ones I searched for one with a head and shoulders which would almost but not exactly match the head and shoulders of the one chosen for the full figure. From this last negative I made an enlarged print on P.M.C. No. 5, dodging and shading it to give the result illustrated in fig. 3. I then copied this print and produced a negative having a lower scale of values than the original. From this copy negative I printed the background in a fairly high key. The size of the full figure was next decided and the print made. In this print I aimed at a full scale of values in contrast to the background print. When dry the figure was cut out with a fine pair of nail scissors. A sheet of dry-mounting tissue was tacked firmly to the back of the cutout and this in turn was trimmed leaving about a twentieth of an inch of the print cut-out projecting beyond the tissue. In mounting the tissue sometimes spreads slightly and, if trimmed simultaneously with the print, it shows and leaves a rough edge in the copy which is hard to touch



*"Soul of the Dance"*

H. F. Kells

Fig. 5: Finished Print

out of the negative. Rubber cement may be used in place of the tissue or the whole may be placed beneath a sheet of glass. Personally I find the tissue more satisfactory particularly when the composite is an elaborate combination.

Before mounting the cut-out on the background it is advisable to darken the cut edges with lead or carbon pencil. In lighting the print for copying care must be exercised to eliminate the edge shadow around the cut-out. Of course it is impossible to do away with this shadow altogether but it can be minimized to such an extent that the copy negative may be retouched successfully leaving no trace of it in the finished print.

Some persons seem to believe that a good copy is a simple thing to make. Truly speaking, it is one of the most difficult feats in photography. To achieve a perfect duplication of the original the exposure must be exact (latitude of the film means nothing here) and the development must be timed to the dot. The poor copy always betrays itself by its blank highlights and its dense shadows which lack detail.

There is a little stunt which I find of value when I have to produce

a print which must be copied. The original print must be made so that the highlights are slightly veiled. The shadows must not reach their full depth but should have their deepest tones represented by a grey black. This stops the copy negative from losing out at the extreme ends of the scale. Of course there must be some loss but it is not so apparent. Otherwise the highlights are liable to burn up and the shadows remain as clear celluloid.

For the sake of comparison note the difference between fig. 4 and fig. 5. The first is reproduced from a copy of a print having normal contrast which was not intended for copy purposes. Note the loss in the highlights and the dense shadows. The second is reproduced from a copy of a print having a reduced scale of contrasts. The result is a print which retains all the values from highlight to deepest shadow. If these reproduce well you will be able to appreciate the decided difference in the results obtained. The magazine reproductions will, of course, show a further loss in both cases and this must be allowed for by the reader.

## An Analysis Of The Composition

The basic principle of this composition is the pyramid. In this case the rectangular form is repeated in the background image with its apex extending out of the top boundary of the print.

The composition is planned so that the eye enters the picture from left to right as is natural to the occidental mind. There is a somewhat symbolic suggestion made by having the figure enter into the light from the dark mistiness behind her.

It will be noticed that all the lines of the background image lead into the central figure. Unity is preserved by the overlapping of the forms so that the interest is not divided but occurs almost within the same area. This area includes the head and shoulders of the full figure and the face of the background image.

The earthly body strives to follow the soaring ecstasy of the soul but the feet still rest upon the ground. This is the emotion which I have strived to depict. Whether the intention has been carried out successfully is for the reader to decide for himself.

## Technical Data

*Camera*—5x7 Agfa view.

*Lens*—Turner Reich, 12 inch.

*Aperture*—f.8.

*Light source*—one 500 w. overhead, one 500 w. with diffusion placed back near camera to lighten shadow. (See Fig. 2).

*Exposure*—1/5 sec.

*Filter*—none.

*Neg. Material*—E.K. Portrait Pan.

*Neg. Developer*—E.K. D-76 borax.

*Print*—E.K. Opal "T".

*Print developer*—D-73 with extra bromide, temperature 80F. for one minute.



# The Human Side Of Portrait Photography

Arnold Genthe



*"Self-Portrait"*      Arnold Genthe

**B**EFORE telling of my own experiences and observations as a portrait photographer, I should like to recall some little known facts regarding the first actual portraits that were made by the medium of photography. They should be of particular interest to New Yorkers, for it was here in New York City that this remarkable achievement occurred less than a hundred years ago. Daguerre, in France, had in 1839 succeeded with his remarkable discovery in obtaining photographs of inanimate objects. He had to expose his plate in bright sunlight anywhere from twenty to thirty minutes, a time much too long for a human being to remain motionless. Samuel F. B. Morse, the distinguished painter and inventor of the tele-

graph, visited him in Paris, became interested in the invention and Daguerre gave him the details of the process. Upon his return from France, Morse collaborated with Professor John W. Draper of New York University, with the result that a means of practical photographic portraiture was evolved. By an ingenious device of concave mirrors it became possible to concentrate the light in such a manner that a portrait could actually be made with an exposure of only a minute or two. The first person thus photographed in 1839 was Professor Draper's sister Dorothy. And this was the first photograph ever made of a human being.

For about a year Morse and Draper worked together, photographing their friends, in quite a professional manner, on top of the old New York University building (now no longer standing) on Washington

Square. Philip Hone, who was then Mayor of New York, relates that many notable New Yorkers flocked to have their portraits done in this new medium. Only a few of these early examples of photography are known. Others may be discovered. So far no attempt has been made to bring together a collection of these earliest camera portraits, which should offer much of historical interest. The pictures being unsigned, the only means of identifying them would be through family records. If a photograph was made in New York before 1841, it must be the work of Morse and Draper. There were no other Daguerreotypes taken in America at that time.

The quaint charm of Daguerreotypes is due chiefly to the fact that the comparatively long poses necessary gave the sitters a relaxed expression. They had not yet learned to pose. Stilted expressions and unnatural poses became the characteristic of later days of photography, and the typical camera face of these times, when the photographic studio was called the "operating room", has not entirely disappeared even from our modern photographic portraits. True, the old-fashioned photographic studio with its formidable apparatus and weird furniture, is more or less a thing of the past, but in the large studios the man behind the camera is still called the "operator", and still has a tendency to impress the sitter with his importance.

When I started to devote myself to professional portrait photography in the late nineties in San Francisco, I had no professional experience, but I was convinced that there must be a way to make, by means of a camera, a record of people that would have a little more relation to life, and maybe to art, than the stilted posed pictures which the studios were turning out. Unhampered by any photographic tradition, unimpressed by the elaborate apparatus and methods which then were deemed so essential, I disregarded all the sacred rules, and in a spirit of rebellion prescribed for myself a principle which I have religiously adhered to these many years: never to permit the sitter to be conscious of the exact moment when the picture was being taken. Only in this manner, I felt, could something of the real personality be recorded by the camera. In those early days, when lenses and plates were slow, when there was no artificial sunlight available to brighten the light on a dull day, it was not so easy to deceive the sitter about the exact moment, for it had to be a somewhat lengthy one, to impress the photographic plate sufficiently. but still I believed it could be done without having to give the fatal command: "Hold It."

One of the first pictures I made in those days of a celebrated person will illustrate this point. I am speaking of a time thirty-five years ago. Paderewski had come to my studio in San Francisco, saying he had only ten minutes to give me. Could I take his picture in that short time? While I seemed to be busying myself with the camera, we talked, and he became interested in a discussion of Chinese art. Suddenly he remembered that he had come to be photographed and said, "But now you will not have time to take my picture. I cannot stay any longer."—"Oh, but I have already taken the picture," I said. "I don't believe you have taken a single one", the famous pianist replied, astonished because he



*"Paderewski"*

*Arnold Genthe*

had not been made to pose. One of these pictures came to be his favorite portrait through the years. It is the one reproduced in the *Encyclopaedia Britannica* in the article on photography.

The belief that it is necessary to pose for the camera is still as firmly rooted in the minds of people as is the idea that portrait photographs are something that come by the dozen. Even in our day, when camera tech-

nique has made such phenomenal strides—as is illustrated in that most interesting and stimulating exhibition of advertising photography now current at the Rockefeller Center—some of the old notions continue to cling to portrait photography. It was only a few years ago that the famous Russian singer, Chaliapin, said to me in my studio, "Tell me when you are ready, and I will make pose". He seated himself at the piano, and, accompanying himself hummed a Russian melody. The picture I made of him then, entirely without his knowledge, he preferred to any of the many photographs that were made of him.

I firmly believe that it is absolutely impossible for any one to be his real self, if he is conscious of the moment when the picture is being taken. Even people who are often before the camera, such as artists of the stage and screen, find it difficult to relax and be natural. Like everyone else, they will seek shelter behind a defensive mask, which is the great stumbling block of all portrait photographers. When a painter or sculptor is called upon to do a portrait, he is given the opportunity to study at leisure the personality and characteristics of his subject during long hours of many sittings. It is related that Whistler required ninety sittings for his celebrated portrait of Thomas Carlyle. The photographer, on the other hand, is allowed at best an hour or two in which to make a portrait which besides being a pleasing likeness, ought also to be a pictorially interesting character study which can never be had unless the sitter be completely at his ease.

How can the photographer in the short time placed at his disposal make the sitter forget the ordeal, and deceive him about the moment when the picture is actually being taken? Much may be done by the arrangement of the settings. The sympathetic atmosphere of a modern studio, with its books and paintings, its comfortable furniture and simple hangings, giving the impression of a library or living room, helps to put the visitor at ease. An adroit question as to some matter of interest to him, may induce the right mood, or the photographer may deem it wiser to be silent, but he will always be watching for a glimpse that will reveal the real person before him. To catch such precious fleeting moments requires skill, tact, knowledge and quick decision. It is almost as much of a problem as photographing a dancer in motion. Just as an arranged dance pose, that will attempt to simulate movement, can never be convincing, a posed portrait, with a prepared expression, will lack a vital and necessary element.

I remember when Anna Pavlowa came to be photographed, she remarked, "You will have no difficulty in making pictures of me. I can hold any dance pose for several seconds, but first I want to limber up a bit," adding, "I don't have to worry about your camera, because I know it is impossible to take pictures quick enough here." Maybe it was impossible, but without her realizing it, I made a series of rapid exposures, while she was dancing without a thought of the camera. One of the pictures was successful. It is the only one ever made of this great artist in a free movement of the dance.

To forget the presence of the camera, is infinitely more important for the sitter, than to make elaborate preparations. The selection of a



*"Chaliapin"*

*Arnold Genthe*

special costume, formal arrangement of the hair, exaggerated make-up of the lips and eyes, are not necessary, or even helpful. As an illustration I should like to mention the circumstances under which three portraits that have become famous since, were made. The well-known pic-



ture of Mrs. Woodrow Wilson, the only one authorized at the time by the President for publication, was made when, as Mrs. Galt, she came to my studio accompanying a friend who wanted to be photographed. When this friend suggested, that she let me make some pictures of her too, the dress, which she did not particularly care for, was merely covered with a black kimono, and thus her photograph was made in the simplest manner, but the picture actually conveyed something of her extraordinary charm.

Isadora Duncan, always shy of the camera, had repeatedly promised to let me make pictures of her, but she always found some excuse. One day she came, saying, "I'm going to keep my promise. I will let you take my passport photograph". I made a few exposures that might answer that purpose, and when she discovered that photographs could be taken so rapidly, and without sense of ordeal, she was quite eager to have me do others. The pictures made on that occasion are the ones she speaks of lengthily in her autobiography.

Greta Garbo, shortly after her arrival in New York in 1925, was brought to my studio by a Swedish friend of mine who thought I might "perhaps" be interested in making a portrait of this young country-woman of hers. Pleased by the pictures she saw in the studio, Greta Garbo expressed a desire to be photographed, but at some other time, in another dress and with a different arrangement of hair. I insisted on making the picture then and there, just as she was, with no special make-up or changes. I remember saying to her, "I don't believe you are real." The strange beauty and compelling personality of this unknown young girl impressed me then just as much as they did later on cinema audiences all over the world. And that the photographs I made on that day were destined to play a part in the career of the most celebrated motion picture actress, is something I may well be proud of.

A talk on the human side of portrait photography should include at least a remark about that most human form of it: the home-made family "Kodak" picture. The fact that these are made with a small camera and perhaps with quite an inexpensive lens, does not exclude the possibility of their having pictorial merit. Here, as well as in the studio, the lens in front of the camera is of less importance than the eye behind it. I remember a well known novelist, who upon looking through a portfolio of my pictures, repeatedly remarked, "I wish I could take pictures like these, but I am only an amateur. What a wonderful lens you must have!" When I asked that she let me see her fountain pen and she wanted to know the reason, she was rather taken aback when I said, "It must be a very marvelous fountain pen."

The fact that you are "merely an amateur", does not excuse you from making at least an attempt at obtaining good pictures. Emerson's word "Every artist was first an amateur" applies also to photographers. No professional photographer deserves success, if he is not at heart an amateur: an ardent adventurer and experimenter. The love for his work must be greater than his desire for material gain, and he can learn a valuable lesson from the enthusiasm and brave unconcern of the real amateur.



*"Mrs. Woodrow Wilson"*

*Arnold Genthe*

*This paper was originally delivered as one of a series of radio addresses by various speakers over Station WOR, New York, under the auspices of the Brooklyn Institute of Arts and Sciences. CAMERA CRAFT takes this opportunity to congratulate, not only the speakers but the organizers as well, upon the performance of a major service to the cause of Photography.—ED.*

# Practical Christmas Cards By Photography

John W. McFarlane

"CHRISTMAS cards: Pictured souvenirs appropriate to Christmas, which modern fashion has introduced into the social world." We are quoting the new International Encyclopaedia.

The purpose of a Christmas card is clearly given in the definition quoted above. Being a souvenir, it must bear in some form or other something of the personality of the sender. In the case of a bought card not originally designed by the sender, the only element of personality that can enter is the taste displayed in its suitability, artistic merits, etc. Many of the cards sent at present completely lack these items, are sent with a feeling of obligation, and received with a feeling of guilt. The Christmas card which is made, or at least designed personally, fulfills the requirements in the highest degree. It represents one's own handwork, and also some interest of the sender. A number of means exist of making one's own cards; the simplest of them are appreciated much more than the cards which are bought.

Among such methods of handwork are the following: Drawing a simple design or message with colored ink on a card of another color; the linoleum block or wood block print which may use any colored ink on any colored stock; various transfer methods and, last but not least, photography in one of its many forms. Photography offers to the amateur the only simple method of halftone reproduction. These other methods are perfectly feasible for any design which is effective in black and white, that is to say, two tones only. Photography, on the other hand, is extremely flexible. It can imitate any process as well as give results quite beyond all other processes. It has the additional advantage that a great number of cards may be turned out quickly. There seems to be an impression that a photographic card should be achieved entirely by photographic means. This is not true; one's aim should be to produce an artistic card, using such aid as photography can offer. A photographic card may be defined as one in which the actual image on the whole or part requires the action of light for its production. Photography has but the one drawback when applied to Christmas cards in its lack of color.



Fig. 1



Fig. 2

Color, except in the most formal cards, is practically a necessity. We will see presently how this lack may be overcome by simple means. While Christmas cards alone will be treated here, most of the technique described applies equally well to: New Year cards, Birth announcements, Book plates, Book marks, Table favors, Party invitations, Tickets for parties and dances, Valentines, etc. The problems of most of these are very similar to those of Christmas cards.

The biggest problem in creating one's own card is that of subject; inspiration is needed. Since this is the most important part of the problem, we will treat it first. To supply the necessary stimulus, a number of subject lists are given herewith. These subjects represent many of the successful Christmas cards collected by the author or described in the literature. The cards collected by the author so far have fallen, roughly, into seven types. This classification is by no means rigid; it is of help, however, in clarifying one's ideas and in arranging a collection of cards. In order of frequency, the types are as follows:

1. Portrait. A picture, usually informal, of the family, or the baby, or children.
2. The Home. The sender's home, or some easily recognizable part of it.
3. Scenic. Winter scenes, etc.
4. Design. Any drawn design, religious, imaginative, Christmas story, etc.
5. Hobby. Any hobby or interest of the sender, whether appropriate to Christmas or not.
6. Table top and still life. Any Christmas event or story worked out as a table top or still-life photograph.
7. Cartoon. Any cartoon which adds to a Christmas greeting.

Any of these types is greatly appreciated by the receiver, and will be kept long after the cards from the "5 and 10" have gone to the Davy Jones locker of correspondence. Those which are usually appreciated the most are the portrait type, especially with children. The Hobby type is also highly valued.

There are noteworthy points in dealing with the different subject types. The subject of a Portrait type should preferably be doing something Christmassy—wrapping parcels, addressing cards, trimming the tree, etc. The Home type, unless it represents a garden, which can really be regarded as a Hobby type, should be appropriate to the Christmas season (fireplace with holly, or exterior of the home in snow at night, etc.) It is a mistake to show a fireplace without a fire. Photographed fires are more realistic when faked with crumpled tinfoil, which reflects the light from hidden Photoflood lamps close by. In any case, the artistic effect of a lighted fireplace should not be sacrificed in the fear of scorching Santa Claus.

The Pictorial type should also represent the Christmas season. The Design type should likewise be connected in some way with Christmas.

The Hobby type, however, need not be restricted to Christmas in any way. A Midsummer hobby or activity is just as much appreciated as any other.

Table tops, again, should represent some Christmas scene, and there is no end to the possibilities with toys and dolls. There are several faults to avoid in table tops: (1) The lighting. A flat lighting is usually disappointing. The light source should be part of the scene, for instance, a fireplace, candles on the tables, light streaming through a window, etc. (2) Putting too much in the picture, or else objects noticeably different in scale. (3) Failure to scale the full picture, that is, if all the details are a close imitation of a full-size set, that is exactly what the scene looks like, and its effect is lost. Some recognizable object of well known size should appear in the set, such as the walnut shell which forms a tub for the tree in Fig. 2.

Having chosen our subject matter, we will see what can be done with it. According to method, there are two classes of photographic cards, the single negative and the multiple negative. A single negative card is one in which the only part photography plays is the production of one negative and prints from it. The multiple negative involves more than one negative, and is exemplified by the copying of greeting plus picture from a previous negative. The single negative method is by all odds the desirable one, especially for those with limited experience. It places somewhat heavier demands on one's imagination in the work in front of the camera, but the work behind the camera is much more quickly and easily carried out, and the quality of the final result is almost sure to be good.

Multiple negative cards demand much time, frequently do not turn out as they are intended, and often result in poor quality. Usually, the work on Christmas cards is not started until so late that no time is left to repeat, and the poor cards or bought ones must be used.

Dealing first with single negative cards, many subjects can be carried out by this process. A single negative card is simply a photograph of something appropriate to Christmas, with the message incorporated in it. The message in any photographic card must be subordinate to the





Fig. 3

picture. The simpler and briefer the message, the better, and it is well to avoid hackneyed sentiments. The message may be incorporated in the picture in a number of ways. To mention a few: A greeting in paper letters hung across the fireplace for the Portrait type of card, as in Fig. 1. A table top scene with the message as a framed motto on the wall (Fig. 2). A Christmas present with a large and readable label. A greeting letter lying with its envelope and a lighted candle. A message inscribed in the snow. Any cartoon. It is not strictly necessary even to incorporate the message in the picture, as it may be added in ink, preferably colored, on the print or its mount. It is not necessary to put one's name on a portrait card in which the faces are readily recognizable. Almost any of the subject types may be treated by the single negative method with a little thought.

There is no end to the possibilities of the single negative method, and its desirability cannot be over-emphasized. However, knowing the perverse nature of the human race, we will now describe in detail the multiple negative procedure. One of the first thoughts that occurs to a beginner in this work is the photographic chiselling of a design from an existing Christmas card. While the results are not usually as successful as other methods, it is practical to add silhouettes or photographs of the family to an existing card and copy the whole.

Another method which may be used is that of mounting a print or

enlargement on a large card, drawing in the message and some ornamentation, and photographing the whole. This usually results in poor photographic quality unless done with extreme care. A good quality print is not the most suitable one to be copied. A print on paper is a distorted tone rendering in that both shadows and highlights are flat. This, in fact, is the biggest difference between a paper print and a lantern slide. The middle tones of a paper print, however, are at least constant in their contrast, so this fact may be utilized in the copying operation. A print to be copied should be somewhat flatter than a normal print in that there are no full blacks or clear whites. The original contrast may be restored in developing the copy negative to a fairly high contrast without much of the distortion mentioned. A better method of printing a picture and message is to use the original picture negative if its size permits, together with the message negative bound in the same mask as shown in Fig. 5. The reason for making a multiple negative card is usually that one has a very desirable negative already on hand, coupled with the desire to add the message to it by photographic means.

There is still another possibility of adding the message if the picture has a sufficiently large light area which could be used for the message. The message is drawn in the center of a large white card and a very thin copy negative made of a suitable size. In this thin negative, the letters are quite clear and the background light gray. This negative is fastened in contact with the picture negative so that the message is properly placed, and the print is made with the picture negative in contact with it. The card shown in Fig. 3 was made in this way. In any case, it is very desirable to print from the original negative rather than from a copy negative of a print.

There are on the market several greeting card outfits such as that supplied by the Eastman Kodak Company, which retails for \$2.00 and is entirely suited to the use of negatives already on hand. It incorporates several printing masks and embossing guide and process negatives of several greetings.

Having prepared our negative, presumably by the single negative method, we now turn to printing. In buying paper, we must be governed by the size of envelope available. The Eastman Kodak Company supplies envelopes especially for the purpose,  $4\frac{1}{4}'' \times 5\frac{1}{2}''$  in size. The surface and tint of the printing paper should be governed by these things: A rough surface such as linen should not be used where small heads are concerned, or, indeed, with any fine detail. A linen surface is suitable and quite Christmassy for simple subjects with little detail, or for designs and cartoons. A white paper should be used on any snow picture; buff or cream are suitable for interiors, especially for candle light or firelight effects. It is desirable to select a paper which is available in a number of contrasts, as it may turn out that your negative demands either more or less contrast than planned for.

For most types of negatives, it is desirable to make a mask with a guiding edge such as that supplied with the Kodak outfit mentioned above. The mask may be made of any opaque paper; the mask charts on the market are very convenient for this purpose. The paper edge

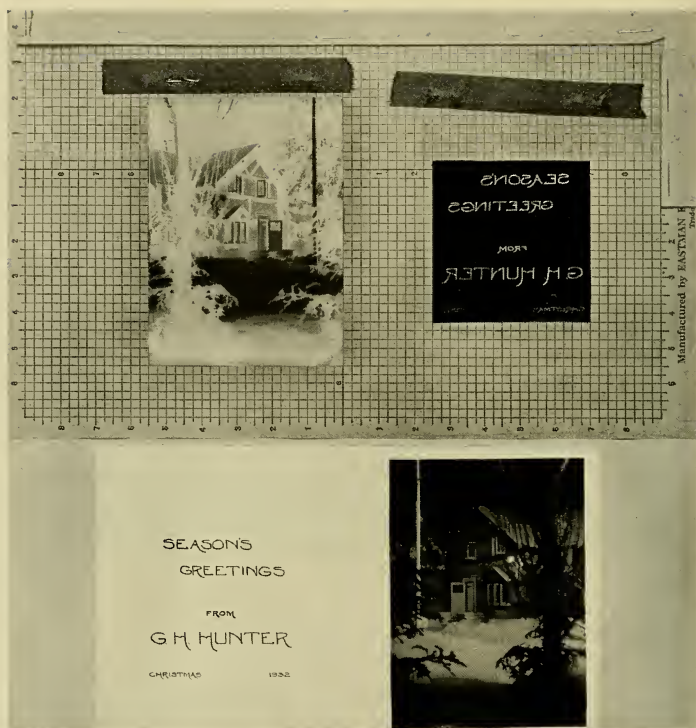


Fig. 4

guide may be stapled or glued on. A mask for a single fold multiple negative card is shown in Fig. 5. If a great number of cards are being made from a single small negative, there is one trick in masking that is well worth while. The mask is prepared with several edge guides, so that a number of printing exposures may be made on one large sheet of printing paper, which is very convenient for developing purposes. For example, six small cards may be printed on one 8x10 sheet by simply moving a fresh area of the large sheet into position after each exposure. The author has processed 200 cards in one hour by this trick.

There are endless tricks in making folded cards, of which a few are indicated in Fig. 7. The simplest is a single fold, as in "A", with the emulsion on the inside. Without ornament, the outside is bald and uninteresting. This can be offset by a ribbon down the back or a hand drawn design on the front cover. The emulsion side on the others is indicated by an "X." That shown as "F," the so-called French fold, is folded twice, so that there is emulsion both inside and outside, which can be used for a greeting or picture. A very effective fold is that shown at "E." The inside paper is single-weight, the outside double-weight, with deckle edges.

The finishing and mounting are quite important. Embossing, some-

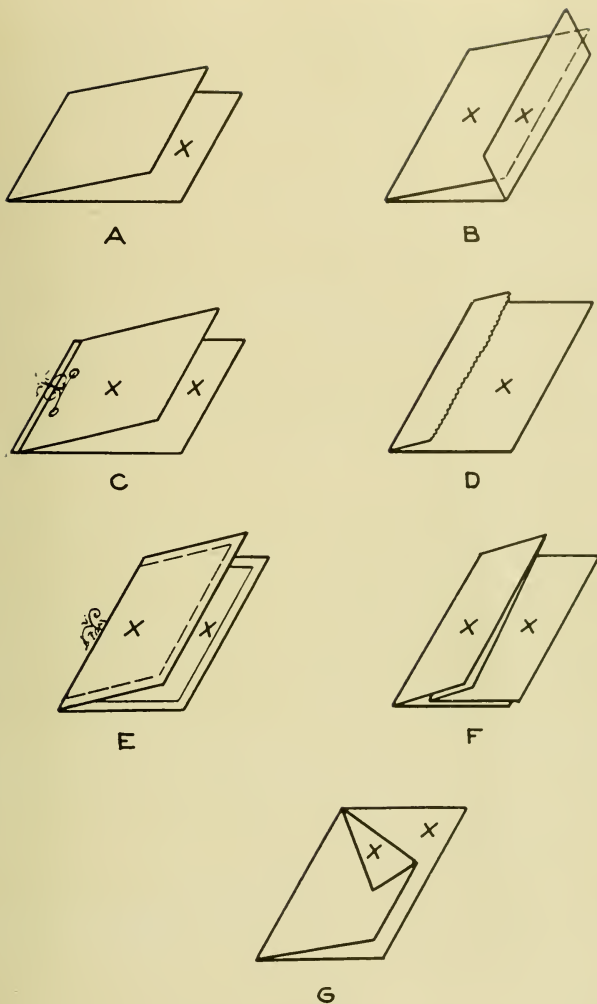


Above, Fig. 5—Below Fig. 6

*Fig. 5 shows the set-up from which the card shown in Fig. 6 was printed.*

times called plate sinking, greatly adds to the effect. If fifty cards or less are concerned, the simplest method is the use of a piece of double-weight paper of the same size as the desired embossed border, cemented to a sheet of glass and illuminated from below. The card to be embossed is then put face down over this piece, centered by eye, or preferably by a margin guide similar in construction and position to that used in printing. If no embossing tool is at hand, a toothbrush sawed off and rounded, or, in fact, any smooth, blunt, rounded object may be used.

Deckled edges may be made in several ways: Tearing the card over the edge of a saw or sawing through a whole pile of cards produces a jagged or finer effect, respectively. Another method is tearing the



## FOLDING CARDS

Fig. 7



card over the cutting edge of a trimming board by thumb and forefinger. This gives an irregular edge suitable for large cards. A finer edge may be obtained on the cutting board using a diagonally slotted block in place of the thumb and forefinger. The edge to be trimmed enters the slot and is torn off as the block is drawn along the cutting edge of the trimming board. There are special deckle edge trimmers on the market.

The addition of color to all but very formal cards is important. Color can be overdone, and a little is all that is needed. A single colored ribbon or colored wool yarn is very effective. A simple little design or border put on with colored ink from a fountain pen is also effective. Water or oil coloring each print by hand is very laborious, although beautiful effects are sometimes obtained. Many prints, especially small ones of the single negative type, may be mounted on a colored card with the addition of ribbon or wool of a contrasting color. As in other phases of greeting-card making, the possibilities for adding color are endless. The matter of color is, however, very important, and makes a great difference in the appreciation of your efforts.

In the cards collected by the author, the most common faults are these:

1. Lack of color
2. Too complicated
3. Poor photographic quality, usually due to copying operations
4. The message not sufficiently subordinate to the picture
5. Uninteresting lighting

There is a peculiar psychological reaction through which you go during the production of a card. At first, you are all on fire with an idea which will be a world-beater. As you progress with the work, your opinion of the effect decreases steadily. The faults magnify. Your final opinion is hardly printable, but just remember this: First of all, you have watched the faults and not the good points, which your friends, unless hypercritical, will not do; secondly, in most cases, the people to whom you send your efforts are not photographers and, therefore, do not see these faults at all. No matter how poor you consider your final result, send it anyway to your non-photographic friends, and you will be surprised at the response.

In closing, we would again recommend the single negative procedure, as making a new negative will be less work in the long run. If necessary, confine your first effort to mounting an appropriate photograph and writing the message in longhand. Remember, "What one fool can do, another one can!"

*The author will appreciate receiving Christmas cards from readers of this article, especially those of the "hobby" type, or any that defy classification as outlined in the article. Cards should be addressed to: John W. MacFarlane, 32 Cedarwood Road, Rochester, N. Y.—ED.*

# Miniature Camera Technique

## Part II

Edwin C. Buxbaum, A. R. P. S.

**I**N miniature camera work, it is important that the laws concerning depth of focus be understood. The amateur must know at what distance the depth of focus is little enough so that an obtrusive background will dissolve and diffuse into a pleasing pattern. He should be acquainted enough with hyperfocal distances to know what his settings should be when quick action is necessary. A little study will acquaint one with the camera and make for preparedness in emergencies.

The miniature camera has many advantages but none of them give the immense advantages that the short focus lens has by virtue of its depth. Depth of focus refers to the distance before and behind the object being photographed which is in focus or sharp at the same time. Depth of focus is dependent on the focal length of the lens, the aperture of the lens, and the distance of the object from the camera. The shorter the focal length of the lens, the greater the depth for any given opening or object at one certain distance. As the miniature camera usually has a lens of two inch focal length, it has inherent in its manufacture advantages of depth, which make it easier for the miniature camera user to obtain pictures sharply in focus than the user of a camera with a lens of longer focal length.

Let us say that you are focusing on an object ten feet away with an opening of F.9. Everything from about seven to 16 feet from the camera will be sharply defined. Not only is the object ten feet away in focus but all other objects seven to 16 feet from the camera are in focus. This may or may not be desirable depending upon what you are doing. Let us say that you are taking a portrait. Your background however is full of disturbing objects. What shall you do? Use a wide opening which will throw your background out of focus and render it diffused and soft. At a distance of five feet using an opening of F.2.5, everything within two inches on either side will be sharply in focus. If your background is more than a foot away, or so, it will be very vaguely delineated. This is what you want. If however, you wish to take this portrait at a greater distance to get better perspective but still wish to use the wide opening to get speed, place the model, say ten feet from the camera. At ten feet with an opening of F.2.5 everything from 9 to 11 feet will be in focus. In this case, by changing the distance of the object from five to ten feet and using the same stop, F.2.5, the depth has been increased from a few inches each side of the object to one foot each side of the object. The smaller the opening the greater the depth. The greater the distance from the camera, the greater the depth also. When

we combine small openings and great distances from the camera, we obtain the greatest depth possible. The other factor, focal length of the lens remains a constant but it is well to remember this as a great advantage of the small camera.

The information about focal depth can be obtained in different ways. Some miniature cameras of the Leica type have this information on the lens barrel in handy form. Some have these tables engraved on small metal plates on the side of the camera. Others supply tables which accompany the camera. It can also be calculated for any conditions but the tables supply the information in handy form.

For any given lens at any given aperture there is a constant known as the "hyperfocal distance". If the lens is focused at the "hyperfocal distance" the greatest depth of focus possible for that lens at that aperture will be obtained, and the operator knows that everything from half the "hyperfocal distance" to infinity will be in focus. It must be clearly understood that a hyperfocal distance applies only to the particular aperture for which it is quoted and that if the aperture is changed the hyperfocal distances also changes. Further if the hyperfocal distance is known it is possible to calculate by simple arithmetical means the depth of focus at settings other than the hyperfocal distance. For example, suppose we have a lens of 5" focus with a hyperfocal distance of 26 ft. at F.8, and we wish to photograph and focus on an object 6 ft. from the camera. Let hyperfocal distance equal HD. Let the distance from the camera to the object being photographed equal DO.

*First Step:* Multiply the hyperfocal distance for the stop to be used by the distance from the camera to the object being photographed. Thus— $HD \times DO$ , or  $26 \times 6 = 156$  ft. This product we will designate as P.

*Second Step:* To find the nearest point to the lens which will be in focus apply the following equation:

P divided by HD plus DO equals point of nearest focus or NF  
 $P \div HD + DO = NF$

Substituting  $156 \div 26 + 6 = 156 \div 32 = 4.8$  ft.

*Third step:* To find the farthest point from the lens that will be in focus apply the following equation:

P divided by HD minus DO equals point of farthest focus or FF  
 $P \div HD - DO = FF$

Substituting  $156 \div 26 - 6 = 156 \div 20 = 7.8$  ft.

From this we see that all points from 4.8 ft. up to 7.8 ft. from the camera would be in focus under this given set of conditions.

If the negatives are to be enlarged it is advisable to photograph at one stop smaller than was used for the calculations, in order to be on the safe side.

If we know hyperfocal distances of the various openings, we can obtain pictures with the least effort when we need to make our settings quickly. Many a picture has been lost because the various adjustments took too long. The opportunity passed while the camera was being made ready. Knowledge of hyperfocal distance prevents this. For instance, with a two inch lens such as is provided in most miniature cameras, at

F.18 when the camera is set at the distance of 15 feet, everything from half that distance or  $7\frac{1}{2}$  feet up to infinity is in focus. No greater depth can be obtained at F. 18. This would almost always give a sharp picture provided, of course, that F. 18 gave enough light. If quick exposures must be made, it is wise to determine beforehand what the correct aperture should be for the lighting conditions. Setting the lens at this opening and knowing the greatest depth possible with that opening, we would know exactly what would be in focus. The smaller the opening the greater the depth. Let us say that instead of F. 18, we are going to use F. 6.3, because it is a dull cloudy day. At F.6.3 with the same lens, the hyperfocal distance is about 40 feet and everything from 20 feet to infinity is in focus.

Thus if an occasion arises where it is necessary to snap a picture quickly or else lose it, knowledge of hyperfocal distances will often save the day. When prospecting with your camera in a locality where a quick snap may prove fruitful it is advisable to set your shutter speed and lens aperture for the general lighting conditions, and to focus at the hyperfocal distance for the aperture you choose. You are then ready to shoot on the instant, provided only that the subject is not closer than half the hyperfocal distance. It must be remembered that the depth of focus mentioned above, namely half the hyperfocal distance to infinity, holds only when the camera is focused at the hyperfocal distance.

Manufacturers of miniature cameras usually include handy tables which give these distances. The following data is given for a two inch lens and shows the depth possible in terms of hyperfocal distance.

<i>Opening</i>	<i>Hyperfocal Distance</i>	<i>Depth of Focus</i>
F 3.2	77 feet	$38\frac{1}{2}$ feet to infinity
F 4.5	60 feet	30 feet to infinity
F 6.3	42 feet	21 feet to infinity
F12.5	22 feet	11 feet to infinity
F18.0	15 feet	$7\frac{1}{2}$ feet to infinity

Another important point in the handling of the miniature camera is the proper use of the finder. Cameras of the reflecting type like the Rolleiflex have no difficulty in this regard but most other cameras which have tubular or magnifying viewfinders present certain difficulties. It is important that the eye of the person looking through the finder see the edges of the frame so that he knows exactly what is included in the picture. Care must be taken to compose and include all important features of the scene being taken. When the negative is tiny, we cannot afford to do as much trimming and consequently, we must use care in the beginning. Keep the viewfinder clean and brilliant; it is restful to the eyes and makes for better pictures. More pictures should be composed on the finder than on the enlarging easel and this is especially true of the user of the miniature camera. It is also good pictorial training that none of us should neglect.

Some miniature cameras which have "everready" cases for their precision instruments protect the lens with the velvet of the case alone. It is better to use the lens cap in connection with the case as some velvets shed little particles that can be very annoying.

## Filters

Filters should be used with discretion. Although it is true that the filter does reduce the sharpness of the image to a very small extent, it is not important in the majority of work with the miniature camera. Filters should be carefully handled and kept clean and dry. Treat them like your lenses. The average miniature user does not need over three filters. For many people, one filter is sufficient. A medium yellow filter requiring about 2x normal exposure is suitable for all around work. It is strong enough to render clouds and some correction of the blue light. When used in connection with panchromatic film, it gives very satisfactory color correction at about double normal exposure. For the most intelligent use of filters, however, we must consider the various kinds of films in relation to the filters.\* For this purpose, all films can be classified into four groups which would be first, the Color Blind Group; second, the Orthochromatic group; third, the Panchromatic group; and fourth, the Supersensitive group. Let us take up the color blind group. Typical of this group would be positive film. This film is not sensitive to red like the panchromatic and not sensitive to yellow or green. In fact the only thing which will be recorded correctly will be black and white or mixtures of the two which will be recorded in their proper tones. Ordinary emulsions of all kinds are also sensitive to blue. Blue light is the most active of all light that affects the silver emulsion. In fact, with a color sensitive emulsion, blue light is so active that we must put a screen or a filter between the film and the object so that we will cut down the blue light and give some of the less active colors a chance to affect the silver emulsion. But, if the film is color blind as is positive film, there is no point in using a filter to hold back the only color to which the emulsion is sensitive, namely blue light. Blue registers as white on an ordinary emulsion because the active blue light affects the emulsion so completely that almost all of the silver is reduced giving a black negative and consequently, a white space in the positive. We will see that as the sensitivity of the film increases, the number of filters you need or can use will increase. Let's take the orthochromatic group.

The orthochromatic group of films is sensitive to blue as all ordinary emulsions are but in addition, it has been sensitized to yellow and to green. This is important when we realize how much of the natural world consists of yellow and green colored objects such as foliage, trees, water and other objects. But, if our orthochromatic emulsion is also sensitive to blue and as the blue is the most active, we must use a filter to cut down the more active blue light and give the yellows and greens a chance to register. This is done with the help of the yellow filter. Yellow filters can be obtained in various degrees of tone or depth depending on the amount of correction which you wish. The average number 2 or two times filter is a good all around one to have. It is useful for bringing out white clouds on a blue sky and for rendering foliage correctly. With all filters, there is of course an increased exposure. You can readily see that if you cut down the most active light, it is going to take more time to register the other colors which are slower. The yellow filter is prob-

\*For film classifications see part I in Nov. 1934 issue.





*"Baby Portrait"*

21st Pittsburgh Salon

*Lola Stone*

ably the only one which has much use with the orthochromatic emulsion. In fact, with a yellow filter of medium density, you are quite well equipped. If you use panchromatic emulsions, however, there are other possibilities.

The panchromatic emulsion group is sensitive to red. This means that not only red will be recorded accurately, but also mixtures of red with other colors like orange which is a mixture with yellow. So the panchromatic emulsion is sensitive to all colors. To use a medium yellow filter with a panchromatic emulsion gives you only partial correction. If you want full correction, use an orange filter which can bring out slight differences of tone such as exist in the grain of woodwork. A light red "A" filter is useful for sunsets and to make dark skies. This again is for panchromatic film only and again shows the fact that as the sensi-

tivity of the film increases, the number of filters possible is also increased. With panchromatic emulsions, a light and a dark yellow filter is a good standard equipment. Other filters can be used for special purposes.

The Supersensitive films are a special group. While there are a few orthochromatic emulsions of high speed, these are subject to the same filters as the slower orthochromatic emulsions. The supersensitive panchromatic emulsions are a little different. Their higher speed makes the filter factors lower in some cases. They do not require as much time for full registration of all colors because of their increased speed. But, the sensitivity to red has been so increased in some films that the greens are rendered incorrectly. To correct this, there are new green filters which hold back a little on the blue and a little on the red but allow the green to print through. These are designated as  $X_1$  and  $X_2$ . For correct color rendition use  $X_1$  under Mazda light with ordinary Panchromatic emulsions but it is not recommended with such film outdoors. With the newer Supersensitive Pans use the  $X_1$  outdoors and  $X_2$  under Mazda light. The same filters can be used for ordinary work with the supersensitive pan emulsions as are used for the slower panchromatic emulsions.

The more color sensitive the emulsion, the less correction is needed. The time the exposure takes depends not only on the filter, but also on the film. Filter factors are usually designated by the manufacturers and should be adhered to. When we say a "two times filter" that is an approximation only which often holds only because of the wide latitude of modern films. So, watch your filter factors.

There are many other filters for special purposes like the ultra violet filters for high altitudes where there are large amounts of ultra violet light, special filters for Infra red photography, special filters of all colors of the rainbow for contrast work in microscopy and astronomy. There are hundreds of them. The amateur does not need more than two or three at the most. A light yellow, a dark yellow and possibly a green or a light red are all that will be needed for a large variety of work.

A filter should be carefully kept and regarded like a lens. Dirt, fingerprints and moisture should be avoided. Use a sunshade over your filter if your filter comes over your lens. Use your filters with discretion. In the evening and early mornings when the light contains much yellow and red, it is often better to use no filter. Nature has already provided you with one. Do not overcorrect unless you are certain of a definite pictorial effect. Mere overcorrection as a stunt is *passé* today. Another thing, if you wish haze in your pictures, do not use any filters otherwise you will find your pictures clearer than the eye sees it. If you want clouds, use a filter. If you want skies dark and mysterious, a dark orange filter will give you this effect. If you want to experiment, use blue, red and green filters. But, don't use them until you have learned what their effect will be.

Much of the training necessary for good work with the miniature camera consists of the fundamentals common to any training with any camera. A thorough familiarity with the theoretical part of photography as applied to the camera itself is invaluable in the production of fine pictures with the miniature camera.

## Cinema Section

Edited by

William A. Palmer

# Translucent Titles

In the Fall, when a movie maker's fancy turns to thoughts of titles for his summer vacation films, it is always pertinent to consider the problems of the photographing of the titles. We present this month a rather unique method of photographing titles. There are certain advantages that this method has over some of the more conventional arrangements. It uses for light source one unit only and the problem of the even lighting of the title card is thereby easily solved. Also it will give very excellent results with "direct" titles which are photographed from a white card with black letters. Perhaps more than any other advantage, however, this method offers a chance for the production of very unusual and beautiful Kodacolor titles.

It is recommended that a title stand of a permanent nature be installed somewhere in the corner of the garage or perhaps in the basement so that when titles are to be made, the operation of setting up is merely a matter of affixing the camera to its support, placing the lighting unit in position, and then shooting away. A stand, such as that illustrated in figure 1, will take very little room inasmuch as it is of a vertical form with the camera pointing directly down toward the title card. The camera is fastened in position on the top of the stand along side of a strip of wood which insures that the camera is always aimed in the proper direction. Below the camera, a distance which

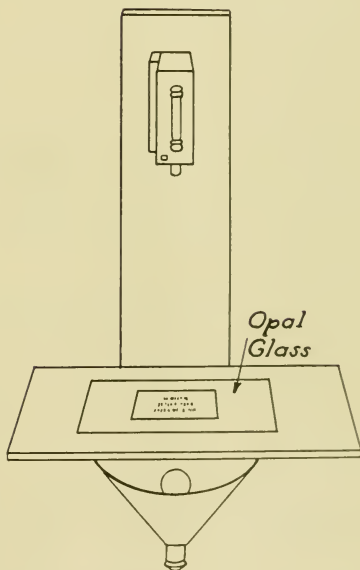


Fig. 1

will vary depending upon the size of title card to be used, there is placed the shell upon which the title cards are to be laid. With this new form of title stand the shell is not an ordinary board, but has an aperture in which a sheet of Opal glass is

placed. The lighting unit is then placed directly beneath the glass plate pointing up in line with the camera lens. The lighting unit can be a single photoflood bulb in a reflector or any other single lighting unit ordinarily used for indoor pictures.

The operation of this title stand depends upon the use of translucent title cards. The titles are made up in a thin white bond paper using the typewriter, hand lettering, or a small printing press with type fonts. The letters, printed in opaque ink, will stand out in extreme contrast with the bright background when they are placed over the opal glass plate. Positive film is used in the camera and then subsequently developed as a negative to produce the conventional film strip for projection having white letters upon a black ground. The exposure with positive film will be about f11. If an art background is desired, it is only necessary to place a still camera negative of the desired background in contact with the title card as the shot is made. Thus one can use one background negative for any number of title letterings. As a matter of fact, it would be very convenient to have a series of stock background negatives, suitable scenes or textures, to use with different titles from time to time rather than to have to make a special background for each title card.

If one wishes to make reversal titles on the regular film, he has only to make photographic contact prints of the title cards which have been prepared in the same manner as those for direct titles. The photographic prints are most successfully made on a thin translucent photographic paper such as that used for the paper negative process.

When reversal titles are photographed by transmitted light, there is an excellent opportunity for making fade-in and fade-

out effects by the simple expedient of providing the light source with a rheostat. The fade-in is made by changing the rheostat from a dim position to full brilliance and fade-out by turning it back down to a low point.

## Spectacular Kodacolor Titles

In the making of Kodacolor titles the method of photography by transmitted light will give effects that are impossible to achieve by other methods. In this case it is well to depart from the usual form of title with white letters against a dark background. Instead the card can be made up with black letters on a white background in the same manner as those for direct titles. Then when the title card is in the proper camera field on the opal glass plate, the background is colored by laying sheets of colored gelatin either over the card between it and the camera or under the card above the light source. One photoflood in a reflector should give full exposure on Kodacolor film when the camera is operated at normal speed. The background can be colored in any one of innumerable solid colors or it can be made up of several pieces of different colored gelatin placed to give a kaleidoscopic arrangement. Small pieces of the variously colored gelatin can be cut in shapes of circles, triangles, rectangles, etc., and laid in artistic compositions to decorate the title. The colored sheets need not be left stationary during the title, but may be moved around to change colors. A color wheel having six or eight colors could be mounted underneath the opal glass plate and turned at a fairly rapid speed to give a very spectacular shimmering color variation. One can easily see that the potentialities for color effects are practically without limit.

## Circles And Straight Lines

How many times have you tried to make your own hand lettered titles and then given up in disgust? This little piece is written expressly for the purpose of

showing that hand lettering is not such an impossible thing for the average person to accomplish successfully if the proper procedure is followed. It is not necessary

ABCDEFGHIJKL  
MNOPQRSTU  
VWXYZ

abcdefghijklmnop  
qrstuvwxyz

1234567890

*Italics are useful*

Fig. 2

to have perfectly formed letters. As a matter of fact, much of the charm of hand lettering rests in the slight irregularity of the letters. All that must be obtained is a reasonable control of the pen and a familiarity with an alphabet so that the letters can be made in a consistent style.

The manner in which the letters are made is of equal importance with the method of photographing titles. The amateur has as his choice for title letters various types of title boards with movable letters, either celluloid or magnetic. He may use the typewriter or set the titles up on a small printing press or he may use hand lettering. Hand lettering when well done is only surpassed in appearance by the letters from printer's type and is very much easier and quicker to use for a small number of titles, since there is not the job of inking the printing press, setting up and distributing the type, and the cleaning of the press.

One should choose a simple alphabet such as that shown in Figure 2. This is an alphabet that is used a great deal in architectural drawing and has the advantage of permitting considerable variation from the ideal shape of the letters and still retaining a satisfactory general appearance. The letters are made with single strokes of a Speedball pen, working with india ink on a white card or paper.

There are a few precautions that must be observed in order to secure satisfactory lettering. In the first place, it is absolutely necessary to have guide lines. Figure 3 shows the guide lines used with the alphabet of Figure 2. There are three horizontal lines forming upper case and lower case spaces. Also a series of vertical or slanting lines is ruled as shown in the figure to serve to keep the upright strokes of the letters parallel. If the lettering work is done on a drawing board, the T-square and triangle are convenient tools to lay out the guide lines. The lines for the upright strokes of italics should be at an angle of about 75 degrees.

An examination of the alphabet illustrated will show that the letters are composed of various combinations of straight upright lines and circles. These circles or round parts should be full and well formed and are easily made if two strokes are used as shown in Figure 3. It is very difficult to make a good circle in one stroke without considerable practice.

One should provide himself with paper and ink and spend a little while just playing around making circles and straight upright lines. When proficiency at this has been acquired there is no reason why very acceptable hand lettering cannot be done

Guide lines  
*are necessary*

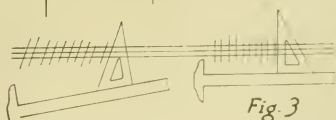
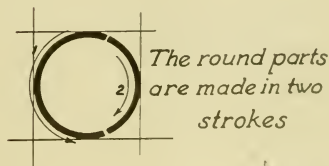
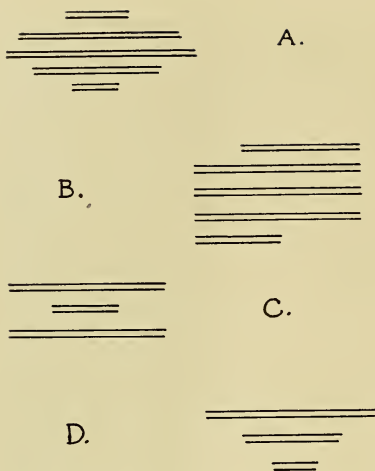


Fig. 3





## Typical Layout Forms

Fig. 4

as one combines the circles and straight lines into the various letters.

Very important in the making of title cards is the layout or arrangement of the letters on the card. This job is made comparatively simple if the titles are not too

long, a characteristic that is always desirable in moving picture titles. They should not, however, reach the state of brevity in which they become telegraphic. When the titles are short, they are most conveniently laid out in one of the symmetrical forms as shown in Figure 4. The symmetrical composition of the masses of letters gives a very pleasing screen appearance and is also easier to work with because one does not have to be careful to get each line the same length as the others. When the titles must be longer, the paragraph form as shown in B, Figure 4 is advisable.

In laying out the wording in the symmetrical form it is convenient to sketch hastily each line on a separate piece of scratch paper. These little scraps of paper can then be folded in the center and the fold matched with a line down the center of the title card. The position of each letter can then be transferred to the card.

In general it should not be necessary to sketch in the accurate form of the letters before the inking process, but one may find that the sketching will help at first before the lettering technique becomes familiar. In the inking of the letters, one must hold the pen easily without any tenseness and make the strokes with firm sure movements. Never try to work over the letters by retracing the strokes.

# Monthly Competition

## The End—The Beginning

We now reach the conclusion of the 1934 Club Trophy Competition. A recapitulation shows that 37 clubs have taken part at various times and that 18 clubs have entered the scoring columns, earning a total of 249 points. This is a good showing for the first year, and we know that a number of clubs are simply waiting for the start of the 1935 contest to jump in with both feet. The time to start is right now. Scoring for the 1935 awards begins with the January competitions, prints for which must reach our office on or before Dec. 4th. The judging is always on the 5th of each month. A complete statement of the rules appears on a following page. Club members should keep in mind the importance of sending each month—it is the total score for the year that counts.

## The Winners!

There really should be five cups appearing in the cut for surprising as it seems the contest for Large Clubs—Advanced Class, has resulted in a tie between the Camera Club of Ottawa, and the Fort Dearborn Camera Club. These two clubs have been running neck and neck all year so the only fair thing to do is to make two identical awards in this class, therefore both organizations will receive a cup. Below we list the winning clubs for 1934 and salute the individual talent and collective enthusiasm that has carried them through to victory.



*Camera Craft Club Trophy Cups*

Division

Won by

Large Clubs—Advanced Class:

Camera Club of Ottawa

Fort Dearborn Camera Club

Large Clubs—Amateur Class:

Photographic Society of San Francisco

Small Clubs—Advanced Class:

Japanese Camera Club

Small Clubs—Amateur Class:

Cleveland Central Y.M.C.A. Camera Club

#### Contributing Clubs—For the Year

Alton Y.M.C.A. Camera Club  
 \*California Camera Club  
 Camera Associates of Huntington  
 \*Camera Club of Ottawa  
 \*Cleveland Central Y.M.C.A. Camera Club  
 Crockett Photographic Society  
 \*East Bay Camera Club  
 \*Fort Dearborn Camera Club  
 Fresno Camera Club  
 \*Golden Gate Leica Club  
 Queen City Pictorialists  
 \*Hagerstown Camera Club  
 Hamilton Camera Club  
 Hartford County Camera Club  
 \*Japanese Camera Club  
 Los Angeles Camera Club  
 Miniature Camera Club of Philadelphia  
 Minneapolis Camera Club  
 Monterey Peninsula Camera Club  
 \*Norfolk Photographic Club

Photographic Society of Bangalore  
 \*Photographic Society of San Francisco  
 Photo Pictorialists of Milwaukee  
 \*Pictorial Photographers of America  
 Richmond Camera Club  
 \*Saginaw Camera Club  
 \*San Jose Camera Club  
 \*Schenectady Photographic Society  
 Sherwood Camera Club  
 Sunshine Photo Club  
 Syracuse Camera Club  
 \*Telephone Camera Club of Manhattan  
 Tulsa Camera Club  
 University of Minn. Camera Club  
 Utica Camera Club  
 Vancouver Camera Club  
 Washington Photographic Society  
 \*Denotes clubs competing in December competition.

#### Scoring for Club Trophy Cups

The following won points for their clubs in the Advanced Class: Paul J. White, for the Fort Dearborn Camera Club; Stanley Jordan, for the Photographic Society of San Francisco, and Edward Alenius, A.R.P.S., for the Telephone Camera Club of Manhattan. Only two of Mr. Jordan's points can be credited to the Photographic Society of San Francisco, as this brings his total to the maximum of 15 points. Mr. Kells has previously reached the maximum so his award can not be credited to the Camera Club of Ottawa.

The following won points for their clubs in the Amateur Class: J. A. Kelly for the Camera Club of Ottawa; Victor T. Yamakawa, for the Japanese Camera Club; Augusta Zachary, and Delbert E. Jack, for the Photographic Society of San Francisco.

### Final Standing of Clubs

#### Large Clubs—Advanced Class

Camera Club of Ottawa .....	24
Fort Dearborn Camera Club .....	24
Pictorial Photographers of America ..	15
Photographic Society of San Francisco	15
California Camera Club .....	10
Los Angeles Camera Club .....	7
Telephone C.C. of Manhattan .....	6
Utica Camera Club .....	1

#### Small Clubs—Advanced Class

Japanese Camera Club .....	16
Monterey Peninsula Camera Club ....	3

#### Large Clubs—Amateur Class

Photographic Society of San Francisco	54
Schenectady Photographic Society ...	20
California Camera Club .....	18
Golden Gate Leica Club .....	10
Camera Club of Ottawa .....	9

#### Small Clubs—Amateur Class

Cleveland Y.M.C.A. Camera Club ....	6
Japanese Camera Club .....	5
Saginaw Camera Club .....	4
San Jose Camera Club .....	2

### The Camera Craft Monthly Competitions—Explained

It is well to understand at the start that the rules governing these competitions are purposely kept at a minimum, so that they may be open to all without red tape and without complication. A competitor may take whatever action he desires that is not specifically denied by the rules. **Camera Craft** makes no copyright claim to the pictures which win awards, and their makers are entirely free to do with them as they wish. Do not bother to wonder if you may do this or that. You have complete liberty of action, provided only that you observe the few simple rules given below.

#### Prize Winners Widely Exhibited

The winning prints in these competitions are made up into Traveling Salons and circulated for exhibition and study to Camera Clubs throughout this country and Canada. To date 78 clubs have requested these shows so we feel entirely safe in saying that these pictures receive a wider exhibition than is possible by any other means.

#### Objects

- To promote the cause of pictorial photography in general.
- To provide our readers with a disinterested means of having their pictures evaluated in comparison with others.
- To provide a department in which ten pictures of merit may be shown, discussed, and analyzed each month.
- To provide an "open forum" for the discussion of these prints by printing communications from readers.
- To make this department instructive and helpful for all by the above means and by printing the technical data on each print.

#### Rules

- Any one may enter. No entry fees. No entry blanks. No restrictions on size, or number. Mounts are not required.
- There are two classes, "Advanced" and "Amateur." These groups are judged separately, with five awards in each class, ten awards in all. The ten winning prints are published in **Camera Craft** each month.
- Prints must have makers name and address, the class in which they are to be entered (whether "Advanced" or "Amateur") and the technical data regarding them, plainly marked on the back of each.
- Prints shall be returned only when stamps sufficient to cover are enclosed with the pictures. Do not send stamps under separate cover as it is possible they may not be connected with the identity of the sender or prints.
- Prints may be in black or sepia but tinted and painted photographs are barred.
- Prints must be in before the 4th of each month to be entered in the succeeding month's competition.
- Prints winning prizes cannot be returned.
- The object of the two classes, Advanced and Amateur, is to insure that individuals shall compete on as even terms as possible. Compare your prints with those shown as prize winners in the two classes, and decide with which group your pictures would most fairly compete. If in doubt enter first in the amateur class and then if

(Continued on Page 608)



*"Self-Portrait"*

*Stanley R. Jordan*

**Advanced Medal Print**

■ Stanley R. Jordan's "Self Portrait" is remarkable for his original handling of difficult subject matter, and for the strongly expressive qualities of the face. No one can fail to realize that here is a photographer who is plumb full of inspiration, eagerly awaiting the best moment for the exposure. Observe, the importance of careful attention to detail. The highlights on cheek and chin, which suggest perspiration, were probably obtained by greasing the face. Without these, much of the creative intensity, which the face now expresses so admirably, would have been lost. Many will hold that two lights constitute distracting spots that tend to unduly subordinate the face. Of course they are distracting, if one thinks only of composition. But we must remember that this picture is more than a portrait, it is a picture of a photographer in action, and as such it seems proper to give a certain amount of prominence to the equipment. It also seems true that the face is so interestingly shown that it succeeds in holding our attention in spite of the difficult situation in which it is placed. Some may prefer to trim from the top until the upper edge of the print would cut the circular opening of the light on the right, thus greatly diminishing the size of the light spot on the left. Such a trimming would, however, destroy the complication of equipment that appeals

(Continued on Page 607)

Second Award  
Advanced Class



"Mad Monk"  
Axel Bahnsen

shown in not forcing his model to attempt a wildly theatrical expression. He shows appreciation of the fact that ideas of this kind must be conveyed in a subtle fashion, and are not to be expressed by exaggerated distortion of the features. For an appreciation of the subtleties of expression by which madness may be suggested we can do no better than to recommend a study of the work of Charles Laughton in the several motion pictures in which he has played the part of an insane person. Study him particularly for the marvelous restraint with which he carries out such parts. And the purpose of all this? A warning to amateurs. Beware of this theme, it is terribly difficult. If you must try it, remember that subtlety, and restraint are the watchwords.

Data: 5x7" camera; 3 photofloods; S.S. Pan. in D-76; paper negative on Defender Veltura F, from positive on Defender Velour Black F; final print on E.K. Opal W, in D-52.

Third Award  
Advanced Class

■ "Book-End", by Paul J. White appeals to us as a most interesting and successful composition, and a decidedly original one as well. Observe how the repetition of varied triangular forms delights the eye. We are quite sure that this would be a most pleasing thing if it were translated into sculpture and that it would serve the purpose suggested in the title admirably. Technically the print is slightly lacking in richness of tone and texture, and in good firm modeling as may be noticed by comparing this figure with that in Mr. Kells print on the following page. Some beginners may be puzzled about the flowing effect obtained in the hair. If so, turn the picture so that the right side becomes the base, and you will see that it was originally photographed in that position a black border would help.

Data: ½ sec. at F:9, on Defender film in D-76; E.K. opal in D-64.



"Book End"  
Paul J. White



**Fourth Award  
Advanced Class**

■ This is a scene which we must confess has been photographed more than enough. Mr. Alenius, however, has revived it to a considerable extent by making his exposure under unusual atmospheric conditions. He has been quite successful in capturing the peculiar atmospheric qualities of a foggy day. The two foreground accents are well placed so that they assist in carrying the eye into the picture. In pictures of this kind it is often difficult to find a viewpoint from which the foreground and background objects compose to advantage, and form an organized unit. The buildings will often be too tall or too short when viewed from the position that gives the best rendition of the foreground, etc. We haven't the space to discuss this matter here except to say that if you are facing such a problem the solution will most likely be found in a radical departure from the ordinary focal length of lens; such as would be obtained by using a single element of a symmetrical lens, (giving greater focal length) when height needs to be added, or in a reversed situation, a wide angle lens. An article on this subject will appear in an early issue.

Data: Thornton-Pickard Reflex; Bausch & Lomb, F:4.5; 1/25 sec. at F:11, on foggy day in May, at noon; E.K. film pack; paper negative on P.M.C. #2; final print by Freson process.



**"Central Park Lake"**  
Edward Alenius, A.R.P.S.



**"A Maid of Athens"**

**H. F. Kells**

contrast to the splendid reality of the figure. The bright line running through the head appears too strong. And, the picture is divided into three horizontal sections of equal vertical dimension, the floor, the wall, and the vista beyond. The last two of the objections, may be answered, though not necessarily refuted, if one feels, as seems evident to us that the artist has intentionally worked for a composition in the classic spirit, suitable for a wall decoration. Equal spacing can be justified in a formalized composition, where a static effect is sought, and the strong horizontal lines, would be in keep-

(Continued on Page 607)

**Fifth Award  
Advanced Class**

■ It was an exceedingly difficult problem to decide which of the five awards this print should receive. In many respects it deserves first place. The photography, the lighting, and the posing of the figure are superb, and beyond criticism. Also, we greatly admire Mr. Kells' courageous acceptance of some of the most difficult technical and artistic problems that a photographer could possibly present to himself. The jury found three aspects of the picture disturbing to them. The background, necessarily artificial, does not seem convincing; especially so in con-



*"Sentinels"*

J. A. Kelly

Amateur Medal Print

■ The strength of Mr. Kelly's "Sentinels" lies in its power to draw from the observer an emotional response to this bleak, barren, snow bound landscape. One fairly shivers on beholding so chill and somber a scene. The composition is severely simple, the principle problem being the placing of the group of trees to the best advantage within the picture space. In discussing Mr. Alenius' print in the advanced group we made an all too brief reference to the fact that changing the focal length of the lens will often help to achieve a desired composition. In this picture we can see that it is desirable to slightly exaggerate the perspective, for we want the line which runs along the tops of the trees to form an angle with the plane of the ground. (One can see how uninteresting the picture would be if the trees were all the same height in the print.) The shorter the focal length of the lens, in relation to the film size, the greater will be the apparent difference in the sizes of the nearest and farthest trees. Providing, of course, that the position of the camera is changed so that the same area of landscape is included in the picture. The reverse is true if the focal length is increased.

Data: Leica D; 1/25 sec. at F:8, with Leica #2 yellow filter; Perutz film in Rodinal; E.K. P.M.C., in M.Q.

Second Award  
Amateur Class

■ In "Profile", we find an attractive model, nicely lighted, gracefully posed, and well photographed. From the technical standpoint, there is room for a bit more shadow detail in the hair. With regard to spacing it seems to us that this pose should be treated in the same manner as we would handle a portrait with the eyes looking directly to the front, or for that matter any other symmetrical composition of this kind. Since the face is looking up there does not appear to be any need of giving greater space in front of the figure than behind it, and we would therefore add a bit more space to the left. The extra space at the top is justified because the figure is looking in that direction. If this were not allowed the picture would appear crowded, and the upward lift that imparts grace and movement to the pose would be checked.

Data: 5x7" view; Wollensak lens;  $\frac{1}{2}$  sec. at F:5.6 by two 1000 W mazda lamps; E.K. Portrait Pan., in Pyro; E.K. Opal H, in M Q.



"Profile"

A. B. De La Vergne

Third Award  
Amateur Class



"Thelma"  
Augusta Zachary

■ The charming qualities of this portrait and the technical excellence of the photography will be evident to all. We do not feel, however, that this picture is nearly as successful as Miss Zachary's previous prize winner. Two items bother us. First, the peculiar dark forms which appear in the background are disturbing and catch the eye unnecessarily. This is especially true of the curved line which is seen at the right of the print just above the shoulder. None of the others are particularly bothersome, but this one cries out for removal. Second the trimming off of the arms is not as gracefully carried out as might be. One notices the beginnings of distortion in the lower part of the arms due to the fact that the operator has worked a shade too close for the focal length of the lens. Such departures from true drawing will always be more evident when they appear at the edge of the print. We believe that the total effect is improved if just a little, (about one half inch on the print) is trimmed from the bottom, and if a black border were added it would help to tie in the loose ends of the trimmed off arms. The trimming suggested you will notice almost eliminates the appearance of distortion in the arms.

Data:  $3\frac{1}{4} \times 4\frac{1}{4}$ " Auto-Graflex;  $7\frac{1}{2}$ " Kodak Anastigmat; 1/25 sec. at F:16, with K2 filter, on Agfa S.S. Pan., in A.B.C. Pyro, with  $\frac{3}{4}$  carbonate; outdoors, in bright sunlight with reflector on shadow side; Agfa Brovira, in B-5.

Fourth Award  
Amateur Class



"Our Street Lighter"  
Victor T. Yamakawa

■ Mr. Yamakawa presents an interesting composition based upon the intersection of two diagonals. One of these diagonal forms is established by the platform upon which the figure is standing, the other by the combination of figure and street light. It is well that the artist appreciates the necessity of a black border in this case for without it the numerous lines which cut the edges of the print would no doubt prove disturbing, and the composition would have the appearance of being in imminent danger of flying apart. Nice technical quality, a stimulating composition combined with the fact that the action has been caught at just the right moment, unite to make this a successful picture.

Data: Vestpocket Kodak; 1/50 sec. at F:8, on E.K. S.S. Pan. roll film, in A.B.C. Pyro; E.K. Opal G in D-64-B; slightly toned in Barstone toner.

Fifth Award  
Amateur Class

■ Mr. Jack discovered a splendid portrait subject, and the fact that he has allowed the wind to get at that unique mass of snow white hair would seem to indicate that he has an appreciation of the pictorial possibilities of his material. The picture is decidedly interesting as it stands, but falls down from the technical standpoint. It is possible to obtain much finer and more brilliant rendition of the hair, both as to texture and with respect to its contrast with the background. Also the lack of shadow detail in the coat is to be deplored. The face itself is nicely modeled and displays good rendition of skin texture. Improvement would result if a little light had been thrown into the eyes by the use of a reflector.

Data: Leica; 50 mm. Elmar; 1/40 sec. at F:12.5, on Du Pont Superior, in P-Diamine-Glycin; print on Agfa Brovira, Rough White.



"Wm. L. Rigdon"  
Delbert E. Jack



(Continued from Page 601)

to us as a vital and integral part of the picture as conceived. By moving the head forward and to the left we might be able to give it a position a little to the left in the picture space, so that it would form the apex of a triangle whose other two corners would be in the light openings. This would give the head a bit more dominance; and further, should help to diminish the feeling that the print, as it stands, is divided into three almost equal parallel sections running diagonally through the picture space. These parallel sections are set up by the light and the head on the left, the camera in the center, and the second light in the upper right.

Data: 4x5" Graflex; 10" Carl Zeiss; 1 sec. at F:32, on E.K. Portrait Pan., in Pyro-Metol; by 2500 W of incandescent lamps; E.K. P. M. C. #9 in Amidol; extra tracing cloth was placed over lights in picture to cut down intensity, and olive oil was used on face.

(Continued from Page 603)

ing with the architectural forms if this picture were applied as a wall decoration. The validity of the first objection and, to a lesser extent, the other two must depend to a great extent upon one's individual philosophy or ideology of photography. What is the proper scope of the medium? Is it legitimate to attempt a picture of this kind by photography? Should such subjects be left to the painter, and if so where do we draw the line? These are important questions in photography today. Give thought to them, and beware of the would-be authority who is too ready with a dogmatic answer that condemns everything beyond the range of his limited vision.

Data: Agfa View; 12" Plagimat; 1/5 sec. at F:8, on E.K. Portrait Pan., in Wellington M.Q. Borax; bromide print in D-73 at 75° F. with extra bromide; gold toned.

## ADVANCED COMPETITORS

\*Edward Alenius, Jamaica, N. Y.  
Jack Arnold, East London, So. Africa  
F. G. Ashton, Ottawa, Canada  
\*Axel Bahnsen, Yellow Springs, Ohio  
A. F. Burritt, Ottawa, Canada  
Fred E. Crum, Spring Valley, N. Y.  
Evelyn Curtis, Oakland, Calif.  
M. K. Curtis, Oakland, Calif.  
Christine B. Fletcher, San Francisco, Calif.  
Floyd R. Getsinger, Phoenix, Arizona  
Virna Haffer, Tacoma, Wash.  
J. K. Hodges, Victoria, Canada  
V. E. Johnson, Chicago, Ill.  
C. M. Johnston, Ottawa, Canada  
\*Stanley R. Jordan, San Francisco, Calif.

\*H. F. Kells, Ottawa, Canada  
Kichiji Kojimoto, San Francisco, Calif.  
Charles Linke, Chicago, Ill.  
L. H. Longwell, Chicago, Ill.  
John Muller, New York, N. Y.  
C. L. O'Brian, Ottawa, Canada  
Nolan C. Richey, Seattle, Wash.  
D. Schneider, Oelwein, Iowa  
Edmund Teske, Chicago, Ill.  
Dr. Max Thorek, F.R.P.S., Chicago, Ill.  
W. J. Turnbull, Ottawa, Canada  
J. N. Unwalla, Bombay, India  
K. Wakasa, San Francisco, Calif.  
\*Paul J. White, Chicago, Ill.  
\*Denotes prize winners

## AMATEUR COMPETITORS

V. Aagaard, San Francisco, Calif.  
Ralph H. Anderson, Yosemite Nat'l. Park, Calif.  
W. F. C. Anderson, Ottawa, Canada  
G. D. Ayldett, Norfolk, Va.  
F. M. Beckett, San Jose, Calif.  
Paul Beckert, Jr., West Lynn, Mass.  
J. Beilby, Ottawa, Canada  
L. E. Berriman, Porterville, Calif.  
H. V. Birch, Schenectady, N. Y.  
Larry Blair, Salt Lake City, Utah  
S. Blyth, Ottawa, Canada  
William Edwin Booth, Richmond, Va.  
Rolf H. Bruhn, Osceola, Iowa  
Roland Calder, Berkeley, Calif.  
Edward Canby, Dayton, Ohio  
Jack Cantrell, Chicago, Ill.  
Lloyd J. Cartwright, Saginaw, Mich.  
Raymond B. Collier, San Francisco, Calif.  
Jackson G. Cook, New York, N. Y.  
R. L. Davis, Pittsburgh, Pa.  
Emelle Anderson DeEds, M.D., San Francisco, Calif.  
\*A. B. De La Vergne, Denver, Colo.  
James R. Evans, Ocean Beach, Calif.  
D. S. Fraser, Ottawa, Canada  
Mortimer Friedman, New York, N. Y.  
Nat Gaer, Brooklyn, N. Y.  
Robert Graul, Alton, Ill.  
Christopher Hartley, Jr., Belleville, N. J.  
Johanna E. Heim, San Francisco, Calif.  
Harold T. Hill, Ottawa, Canada  
Ellis Ingram, Ottawa, Canada  
\*Delbert E. Jack, Berkeley, Calif.  
S. Kawai, San Francisco, Calif.  
\*J. A. Kelly, Ottawa, Canada

S. D. Kerr, Cincinnati, Ohio  
Ernest W. Kestner, Schenectady, N. Y.  
Katsumi Kita, T.V.D., San Francisco, Calif.  
Dr. A. Korneljewski, Schenectady, N. Y.  
Ray Kuhn, Cleveland, Ohio  
A. R. Lindgren, Rochester, N. Y.  
P. F. Loope, Schenectady, N. Y.  
W. H. McCullough, Yakima, Wash.  
W. J. McCune, Schenectady, N. Y.  
Dwight S. McDaniel, Pacific Grove, Calif.  
C. N. McDavitt, Schenectady, N. Y.  
H. E. McFaddin, Hagerstown, Md.  
Philip Merritt, Pullman, Wash.  
J. L. Michaelson, Schenectady, N. Y.  
M. Moskowitz, New York, N. Y.  
W. T. Nakahara, San Francisco, Calif.  
R. Nelson, Calumet, Mich.  
Ronald W. Olsen, Schenectady, N. Y.  
W. H. Orton, Mertola, Portugal  
Harry E. Pearl, Oakland, Calif.  
George Peterkin, Costa Mesa, Calif.  
Ward C. Platt, Kalamazoo, Mich.  
Everett Rudisil, Lincoln, Nebr.  
Lawrence Schreiber, Cleveland, Ohio  
J. W. Schuler, Akron, Ohio  
George Scott, Jr., Mesa, Arizona  
George Semonsen, San Francisco, Calif.  
L. H. Shaw, Schenectady, N. Y.  
Alex Silverberg, Cleveland, Ohio  
Clark C. Stanley, Oakland, Calif.  
William E. Wenz, San Francisco, Calif.  
Herbert B. Woodline, Cincinnati, Ohio  
\*Victor T. Yamakawa, San Francisco, Calif.  
\*August Zachary, San Francisco, Calif.

\*Denotes prize winners



successful move up to the advanced. In order to insure fairness and an equal chance to all, the judges reserve the right to move prints into the advanced class if the quality of the pictures seem to justify this.

#### Awards—Advanced Competition

First: Silver Medal.

Second: Photographic Merchandise, value \$5.00.

Third: Two years' subscription to **Camera Craft**.\*

Fourth: Eighteen months' subscription to **Camera Craft**.\*

Fifth: One year's subscription to **Camera Craft**.\*

#### Awards—Amateur Competition

First: Bronze Medal.

Second: Photographic Merchandise, value of \$3.00.

Third: Eighteen months' subscription to **Camera Craft**.\*

Fourth: One year's subscription to **Camera Craft**.\*

Fifth: Six months' subscription to **Camera Craft**.\*

\* May be presented to a friend or divided and presented to friends at this or holiday time.

#### Technical Data

We request that the technical data be placed on the back of each print submitted to the competition. A complete technical description should cover the following points: Size and make of camera, make and focal length of lens; exposure time and aperture used; negative material; negative developer; filter; light source; (if artificial, the number of lights and the wattage, if outdoors, the time of day and the month); paper; print developer; special treatment. By "special treatment" we mean, any manipulation or procedure that is not covered by the above.

#### Club Trophy Features of the Competitions

Four Silver Trophy Cups will be awarded to clubs making the best record in the Camera Craft Monthly Competitions for the year 1935. Awards will be made on the following basis:

1. Clubs will be divided into two groups—large and small on the basis of membership, and identical awards will be made to each of the two groups. This is to make sure that competing clubs will be of approximately the same size. Large clubs will be those whose membership is over 40. Small clubs are those with membership of 40 or less.
2. The four awards are as follows:
  - (a) To Large Club making highest total score in the Advanced Class.
  - (b) To Large Club making highest total score in the Amateur Class.
  - (c) To Small Club making highest total score in the Advanced Class.
  - (d) To Small Club making highest total score in the Amateur Class.
3. Points in each of the four divisions, Large and Small Clubs, Advanced and Amateur Classes are as follows:

5 points for First Award, 4 points for Second Award, 3 points for Third Award, 2 points for Fourth Award, 1 point for Fifth Award.
4. Each club has the opportunity of competing for two cups. One in the Advanced Class and one in the Amateur, but individuals within the club cannot enter in both classes. Individuals may choose the class in which they wish to compete, but the judges reserve the right to change entries from the Amateur to the Advanced class if the quality of the work seems to warrant it.
5. No individual may earn more than 15 points for his club.
6. It is well to understand that the conduct of this competition is in nowise changed by the addition of these annual club awards. Judging is still entirely on the basis of the individual print, and those who are not club members have the same chance of winning awards as formerly. The only difference is that now if a prize winner is a member of a club, his club will be credited with the proper number of points allocated for that prize.
7. Scoring for these cups begins with the January Competition, prints for which must reach this office on or before Dec. 4, 1934. It runs for 12 months concluding with the Dec. 1935 competition. Prints for each succeeding competition must reach this office on or before the 4th of the preceding month.
8. Club name, makers name and address, and technical description of print must appear on the back of each picture.

#### What To Do

- Study the rules which appear on this page and the rules governing the competition in general which appear above. ■ Appoint a committee of one or two whose sole duty will be to collect and forward prints **each month and on time**.
- Divide your membership into two groups, one to compete in the Advanced Class, the other in the Amateur. It is not required that a club compete in both classes.
- Be sure and send each month as it is the total score that wins. Let's go!

# Editorial

## At Christmas Time

■ As we sit down to put the finishing touches to this issue it comes as something of a surprise to us to realize that this is the second Christmas issue to go forth since we have occupied this chair. It seems only yesterday that we began this job with no little trepidation, and an almost over-powering realization of our own short-comings. Since then we have gained a little confidence, but by no means too much, we can assure you. There is still much too much room for improvement, and we know that there always will be. Not that we don't intend to improve ourselves, personally and otherwise, but because as advancement is made, the goal must forever be extended. The day that process ceases the vitality of a magazine dies. So, our pledge to the readers of this magazine is continual dissatisfaction, constant striving for improvement; a magazine that will steadily become better and better, insofar as it lies within our power to make it so. That seems to us a sound and honest pact. We hope you agree.

■ This seems a fitting time to acknowledge our gratitude for the very encouraging way this magazine has been received during the past year—a reception that has resulted in the circulation of our November 1934 issue coming to within two hundred copies of being double what it was only a little more than a year ago. Credit for this growth must unreservedly be given to the several talented photographic writers who have so kindly contributed to our pages. They have prepared their articles with painstaking care, making every effort to be as helpful as possible. Their reward has been little more than the satisfaction derived from helping the other fellow. To the right type of man this can be adequate return for a considerable effort. We submit that those who have appeared in these pages have proved themselves to be unselfishly devoted to the readers interests.

■ We thank the many friends of this magazine who have sent us letters of encouraging comment, helpful suggestions, and criticism. Such letters are more than welcome, for they perform the very valuable service of telling us "how we are doing." In our first editorial we expressed the hope that readers would take an increasingly active part in shaping the policy and content of the magazine. That desire is reiterated here. Write to us, write for our Correspondence Department, and we do wish many more would form the habit of commenting upon our competition prints from time to time.

■ All this may seem rather a round about way to extend Christmas Greetings. But, we have tried to express our gratitude and thanksgiving for the good things that have come to us during the past year, and that attitude appears to us to be closely allied to the spirit of Christmas. So, to You and You and You, Best Wishes for the Merriest Christmas Ever, and for a Happy and Prosperous New Year; from Ida M. Reed, from George Allen Young, from old Mr. Camera Craft Himself, and from each member of his staff; with the hope that these greetings may continually be exchanged for many years to come.

## Club Notes

### F:64 Group Offers Traveling Show

The F:64 Group has prepared a group of 60 prints uniformly mounted on 14x18" mounts that will be available for exhibition by Camera Clubs or like organizations throughout the country beginning Feb. 1st, 1935. The show will be sent only to those who have facilities for exhibiting them under glass. This show affords a very unusual opportunity to see a very representative collection of the work of the leaders of the "Pure Photog-

raphy" movement, and consequently should be of great interest. The F:64 group includes in its membership such well known names as, Edward Weston, Ansel Adams, Willard Van Dyke, John Paul Edwards, Imogene Cunningham, Consuela Kanaga, and several others. Requests for the exhibitions should reach Mr. Willard Van Dyke 683 Brockhurst St., Oakland, Calif., not later than January 5th, 1935, as the schedule will be made up at that time.

**Camera Craft Traveling Salons  
Print Directors Please Note**

Pending the receipt of all of the questionnaires recently sent to clubs requesting the Camera Craft Traveling Salons,

the publication of the schedule for Group III of these shows will be delayed until the January 1935 issue. At that time we will give full details of our new plan for the circulation of these exhibitions, and announce the schedule for the new group.

## **Notes and Comments**

### **Get This—It's Good**

Extremely interesting to both amateur and professional is the new Brooks Bulletin #24, a highly informative and descriptive listing of the already famous line of enlargers and enlarging accessories marketed by this always enterprising concern. Here are more than thoroughly satisfying descriptions of the Foth Derby, Rajah, and Granako Enlargers. It is evident that this firm has combed the market for unique and ingenious items to tempt even the most wary workers.

Whether you are looking for an inexpensive miniature or the ne plus ultra in enlargers, a card to Burleigh Brooks, 127 W. 42nd St., New York, N.Y., will bring the desired information.

### **Transit Bromoil Press**

It is hardly necessary for us to enlarge here on the beautiful rich print quality, the ease of control, and the great variety of colors that are made possible by the bromoil process or to explain that these qualities are further enhanced in a well made bromoil transfer. A good press is of utmost importance in the making of the bromoil transfer for success depends in great measure on an all-over even pressure, and the complete elimination of any stress or slipping between the matrix and the transfer paper. The new "Transit" press has been especially designed for this work by Mr. Chas. H. Partington, and its important principle is this. The transfer "sandwich" lays on a table which by means of a gear and rack, is propelled past the pressure point at a surface speed which is exactly the same as that of the

roller applying the pressure. Thus all chance of slipping is virtually eliminated. Write to Partington, Inc., Station H, Cincinnati, Ohio, for full information.

### **Sharman Camera Works**

The Sharman Camera Works, 165 Post St., San Francisco, Calif., are experts in the construction of special photographic equipment or in adapting existing equipment to special needs. No job is too difficult for them to handle. One of their re-building jobs that has proved very popular is the expansion of an ordinary 12 film Graflex cut film magazine so that it will take 22 films—very handy when one needs to make a number of shots. As an illustration of the more difficult types of work that this firm undertakes we may cite the special camera recently completed for Stanford University. This is to be used to photograph an estimated 1300 new students at the beginning of the new semester, and is so arranged that the students signature and other data may be incorporated as part of the negative. If you have a repair, re-building or construction problem take it to Sharman.

### **Colored Photographs**

Just to be sure that our readers do not overlook an aspect of photography that may bring them much pleasure during the winter months we call attention to the advantages of coloring photographs with oil colors. This work will add much of beauty and naturalness to one's pictures and there is real pleasure in the doing. A little touch of color will do wonders for your Christmas Cards and

there is no easier way to apply it than by the use of oil colors. The Roehrig-Bielenberg Co., Inc., 39 Henry St., Brooklyn, N.Y., manufacture excellent materials for this work. Write to them for full information.

#### **Willo Greeting Card Outfit**

The firm of Willoughby's Inc., 110 W. 32nd St., New York, N.Y. is offering an exceptionally complete outfit that contains all of the necessities for the production of your own greeting cards. The outfit is designed for 4¼x5½" cards with a 2x3" picture opening, and is complete with four vertical and four horizontal masks each with a different sentiment, an embossing tool, and frame. The firm will also supply at reasonable prices Apex printing paper in Coral Pink or Green color, each in two degrees of contrast which makes possible the use of a wide range of negatives. Envelopes to match these two colors are also available.

#### **Trainer-Parsons**

This firm is fortunate it seems to us, in having a man in charge of their photographic department, who is not only thoroughly familiar with equipment and materials, but is also an actual practicing pictorialists, as is evidenced by the fact that he has won prizes in the **Camera Craft** competitions on several occasions. Mr. Calder pays particular attention to getting interesting new things on hand at the earliest possible moment, and he is constantly on the look-out for out-of-the-way items of interest to the pictorialist. It's nice to do business with a fellow who "speaks your language", as the saying goes. We assure you that Mr. Calder can and will do just that. Stroll into 228 Post St., San Francisco, and see for yourself.

## **Our Book Shelves**

**Projection Control**, by William Mortensen. Published by the **Camera Craft Publishing Company**, 96 pages, cloth bound, price \$1.75.

This book is concerned primarily with describing the four methods which Mr. Mortensen uses to control the image during projection. They are, framing, local printing and "dodging in", alteration or distortion, and combination and montage. Part of what now comprises the book originally appeared in **Camera Craft** in November and December 1933. The original articles with some additions were subsequently published in pamphlet form, and the whole printing of this was sold out in six weeks. In response to persistent requests Mr. Mortensen has enlarged the

scope of the pamphlet to about three times its former size, and has treated each aspect in fuller detail, and has also described the application of **Projection Control** to types of pictures not previously covered. Valuable new chapters in the present edition are those on the elements of projection printing, and the esthetics and mechanics of "Framing" by which is meant establishing the proportions of the picture, and composing it with its "frame". All readers of this magazine have seen and admired Mr. Mortensen's excellent photographs and know from his articles that he writes with a clear concise style that is readily understandable. They will welcome this opportunity for additional information as to the methods he employs to attain his splendid results.

**Elementary Photographic Chemistry.** Published by Eastman Kodak Co., Rochester, N.Y. 132 pages cloth bound, price \$1.00.

This new edition is expanded considerably over previous issues, especially in the section dealing with formulae which is now very complete. Each of the important photographic chemicals are described and their properties given in the section of the book which deals with their use. The opening chapters give a necessarily brief introduction to the elements of chemistry that are important for a practical understanding of the photographic processes. Unless one has had a certain amount of scientific education it is hardly practical for one to attempt a full study of chemistry with the hope of attaining a complete understanding of photographic chemistry in its scientific aspects. A book such as this, however gives the essential information for intelligent practical procedure and should be read by every one interested in doing serious work.

**Modern Photography.** Published by Studio Publications Inc., New York, and London. Price \$2.50 paper, \$3.50 cloth.

This annual review of photography has earned a place as one of the authoritative collections of modern photographs. This year's volume contains ninety-six examples of camera work, twenty of which are by American workers. The plates are about  $6\frac{1}{2}$  by  $8\frac{1}{4}$  in size, made by the photogravure process.

In many ways this book shows a great advance over the previous publications by the same publishers. The reproductions are infinitely better and the color of ink used is more in harmony with photographic objectives. The foreword by Ansel Adams is clear, concise, and well conceived. It, and Lewis Mumford's chapter on photography in "Technics and Civilization", are among the best statements on contemporary aims and ideals ever written. Another valuable department gives the full technical data about each print reproduced. The subject material covered by the photographs is varied

and interesting, but in few cases does the work come up to the standard set by Mr. Adams in his foreword and in his own work, of which there are four examples presented. Photographs like "Through the Glass" by Larry June are pure trickery and hold no permanent interest for the serious worker. The use of unusual angles for bizarre effects is also overdone. One wishes for a little less cleverness and more photographs with the beauty and integrity of the portrait study by Eugene Hutchinson on page 54. Another feature not to this reviewer's liking is the preponderance of animal photographs. Twenty percent of the total number of prints reproduced use animals as part or all of their subject matter.

It seems unfortunate that America does not have an annual devoted to the New Photography, as unquestionably the finest work in that direction is being done in this country. Willard Van Dyke.

**The Year's Photography.** Published by the Royal Photographic Society of London, paper covers \$1.25.

The sixty-five pictures reproduced in photogravure in this volume are selected from the annual exhibition of the Royal Photographic Society. All who are familiar with the high standards of selection in force at this show will realize that the pictures will of necessity be of a high degree of excellence. A feature of this book is the splendid section of Natural History pictures a type of subject that is not given nearly as much space in other photographic annuals as it receives here. A picture which all photographers will be interested to see is the portrait of Havelock Ellis, by Maurice Turney which won the Pirie McDonald award this year. The pictures in the pictorial section of the Salon are discussed by H.B.T. Stanton, A.R.P.S. and those in the Natural History Section by Ian M. Thomson, M.B.O.U., F.R.P.S. Edwin E. Jelley, Ph.D., A.I.C., F.R.P.S., writes a brief dissertation on the usefulness of photography in the scientific field, and J. Dudley Johnston, Hon. F.R.P.S., discusses the lantern slides.















